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F. & F. NURSERIES

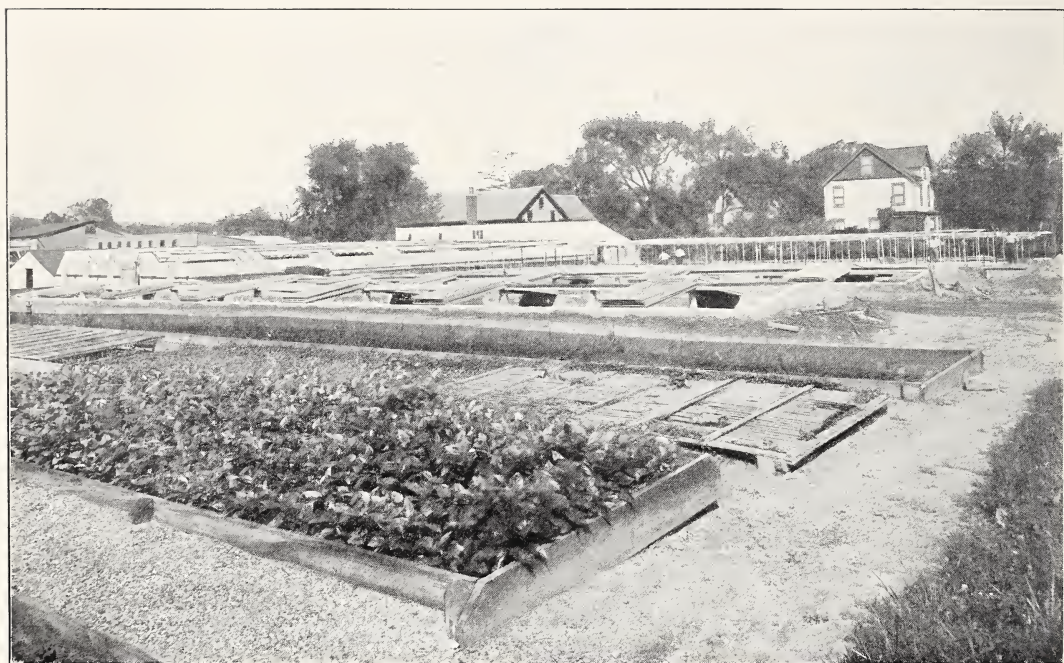
HARDY TREES
SHRUBS, PERENNIALS
EVERGREENS, ETC.



EFFECTIVE PLANTING OF WHITE DOGWOOD

SPRINGFIELD

Union County NEW JERSEY



Our propagating plants—where every year thousands of young plants are produced.



INTRODUCTION

Our first thought is one of appreciation and thanks to our many friends who have bought our products during the past and whose confidence and patronage have been so great a factor in our success; and then some word of explanation to those receiving this Catalogue who are unacquainted with our Nurseries, the quality of our stock and our methods of business.

This book describes briefly and without conscious exaggeration, the staple articles propagated in our nurseries. We do not grow everything; no location is possessed of the necessary soil and climatic conditions to make that possible; but we do claim to have as extended an assortment of the things worth planting over a very large area as can be found in the country.

Having been established since 1882, we can claim experience and ability in propagating and growing trees and plants; and the extent of our acreage and the stock we have are evidence of the success that comes of patronage that continues and increases from year to year. We invite inspection of our place; our nurseries are located in the center of the historic village of Springfield in the Orange Valley, and can be easily and quickly reached by train or trolley or over excellent roads by auto.

PRICES quoted in our price list are for best commercial grade and quality. **Trees selected by customers at the nursery will be charged for in accordance to their value.** We quote by height but it must be remembered that the height does not always indicate the value of a tree or plant—a very short and compact specimen is more valuable than a slim, straggly one of the same height. Customers can rely upon our selecting full value for the prices charged. We are firm believers in the graded stock system not generally in use in the nursery business. We grade according to height and caliper.

DELIVERY. We will deliver free to near-by customers with our own trucks. Distant orders will be safely and securely packed in boxes or bales and delivered F. O. B. cars here, freight or express charges to be paid by the purchaser.

TERMS. Customers with whom we have had no dealings heretofore should remit with order, or send satisfactory references. Old and known customers can, if they wish, remit on receipt of goods. All accounts are due, **net cash**, as soon as goods are received. Remit by Check, Draft, Express or Money Order, one and two-cent postage stamps accepted for small amounts.

EARLY ORDERS. Customers should send in their orders as early as possible so we can place them on our digging list. Our work in the digging season is necessarily very much crowded owing to our dependence on the weather conditions, and we can only in exceptional instance fill orders in other than regular turn.

DIGGING SEASON usually commences end of September in the fall, continuing so long as ground holds open. In the spring from the middle of March until middle of May.

GUARANTEE. We guarantee all our stock true to name and in good condition on leaving our hands, but do not guarantee it to live and grow under all conditions, nor do we make up any loss whatever due to climate effects, or after-culture on the part of the purchaser. In case any mistake should happen in the naming of a plant we will replace it with the true variety as ordered, but we are not liable for more than its original invoice value in refunding money.

F. & F. Nurseries, Springfield, N. J.

PLANTING SUGGESTIONS

We exercise care in digging, packing, shipping and delivery of our products, thus insuring to the planter the best possible results.

We do not guarantee plants to grow under all conditions, and do not replace stock that perishes on the customer's premises, unless such loss is directly due to negligence or carelessness on the part of our employees.

We have seen stock planted on adjacent places, in the same kind of soil and under like conditions, but the care and treatment different, the one an entire success, the other a failure; and the nurseryman commended or censured accordingly.

If the following instructions are adhered to our stock will grow, unless you are planting some species that are difficult to move, such as Sweet Cherry, Birch, Beech, Oak, Tulip and Sweet Gum.

At once on arrival packages should be opened and the trees planted, or if that can not be done, open a trench in mellow moist soil and heel the stock therein, wetting the roots so that the earth will adhere thereto. Do not crowd the trees, but tramp the dirt about the roots that these may be in close contact with the soil. Trees so trenched can later be taken out as wanted and planted.

For permanent planting all trees should be set about the same depth as they were in the nursery but in heeling-in they should be covered deeper. The roots should always be wet before planting thus making the earth adhere closely.

It is of the utmost importance that good well drained soil be used in planting. After the roots are spread in their natural position the earth should be firmly tramped. More failures in transplanting result from lack of compliance with these conditions than from any other cause.

Mulching the surface around newly planted trees is desirable and in dry soil is indispensable for best results. Freshly cut grass, partially rotted manure or straw may be used for this purpose.

We do not approve of indiscriminate and extensive pruning at any period of a tree's life, but if the roots are much shortened, some pruning of the top is necessary to maintain a balance. Beech, Oak, Sweet Gum, Mulberry and Tulip Trees ought to be pruned severely. Cut off mutilated roots. Cut to the trunk or a bud always that you may not later have unsightly and dead spurs that delay the process of healing.

Planting Evergreens is more difficult than planting deciduous trees, particularly if large, and special care must be taken to keep the roots moist. Chances of success are much greater with small and medium sized trees. Choice and rare sorts should be moved with a ball of earth attached when possible.

Another important factor to be considered is the time of planting. Most deciduous trees can be planted in Spring or Autumn, though some varieties are best planted in Spring only. Consult us on this matter and we will advise you. The Spring planting season opens in latter March while in Autumn plants can be moved in October and until the ground is frozen.

Evergreen Trees and Shrubs can be planted in April and May, and from the middle of August to November, depending upon climatic and weather conditions.

All plants should be copiously watered from time to time unless there are abundant rains.

Herbaceous stock can be planted in Spring or Autumn, preferably in September. Experience proves this the most favorable time and insures best results for the ensuing season. This stock should be well mulched before severe cold weather.

Landscape Work

To those who have time and who do not wish to employ a landscape architect, the following suggestions are offered:

Endeavor to picture in your mind the appearance of the work when completed, and also what the result will be in after years when the trees and plants have attained their growth.

The first step will be to locate your drives and walks, these should be conveniently placed and as few and short as possible; a slight curve, however, is more graceful and pleasing to the eye than a straight line. In grading be sure to have at least a foot of good soil on top. Try to avoid steep terraces; slopes of easy natural curves will keep in order much longer, seldom requiring repair and are easier to care for. If a steep bank is unavoidable, it may be planted with suitable shrubbery in groups.

In placing trees and shrubs, preserve the desirable views, screening the objectionable. Trees with bold outlines, planted at a distance, will give character, while masses of the smaller growing and more select varieties will add charm to the foreground. Procure such as are best adapted to the location, are easily taken care of and that will produce a variety of flowers and foliage to make your grounds attractive throughout the year.

In arranging plantings, leave as much open lawn as possible. On the margins plant in masses and beds with large bays and projections to which later new acquisitions may be added. Consider the size of the plants at maturity, placing the largest in the rear and those of dwarf habit in the foreground. Give each room for full development. If immediate effect is desired, the planting can be closely made by placing first what is to remain permanently, allowing ample room for development, then filling between these with plants which are later to be removed.

ORNAMENTAL DEPARTMENT

Deciduous Trees

All the trees offered have been one or more times transplanted, are of standard commercial grade, shapely and well rooted.

Acer Japonicum—Japanese Maples (See Shrubs.)

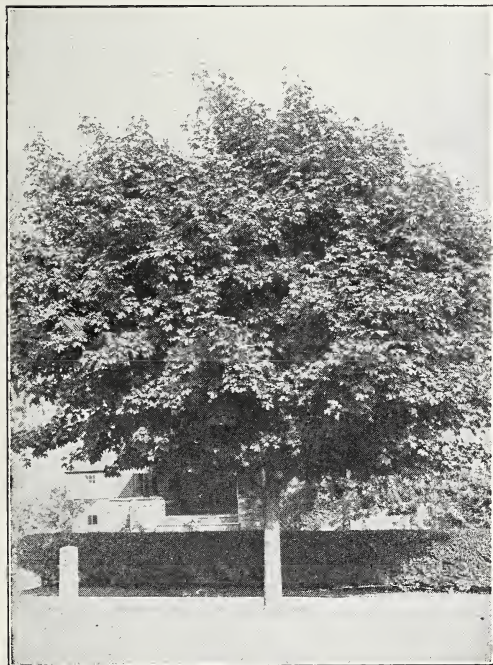
Aesculus—Horse Chestnut
hippocastanum (European Horse Chestnut). Its large panicles of white flowers in May are its glory.

- flore plena** (Double Flowering Horse Chestnut). Flowers are double and bear no fruit.
- rubicunda** (Red Flowering Horse Chestnut). Bears large panicles of showy red flowers.

Amelanchier—Snowy Mespilus (See Shrubs.)

Amygdalus—Flowering Peach
Persica. Double crimson, rose and white. Blooms in April.

Andromeda (See Shrubs.)



Norway Maple.

Acer—Maple

dasycarpum (Silver Maple). Of rapid growth; round, irregular form; leaves light green above, silvery beneath.

—**Wieri laciniatum** (Wier's Cut-leaved Maple). Leaves finely cut. Habit distinctly pendulous, graceful.

Negundo (Box Elder, Ash-leaved Maple). Light green foliage and greenish colored smooth bark.

platanoides (Norway Maple). Foliage dense and dark green, remaining on the tree until late in the Fall.

platanoides Schwedleri (Purple-leaved Norway Maple). Bright crimson in early Spring, fading to dull purple in late Summer.

rubrum (Scarlet or Red Maple). Thriving particularly in damp soil. Is much admired for its red blossoms in Spring and deep crimson foliage in Fall.

saccharum (Sugar Maple). A symmetrical, handsome tree. Finely colored foliage in Autumn.

Tataricum Ginnala. (See Shrubs.)



Horse Chestnut.



Cutleaf Weeping Birch

Aralia

(See Shrubs.)

Benzoin

(See Shrubs.)

Betula—Birch

alba (White Birch). Particularly effective in Winter on the border of a wood or evergreen belt.

—**laciniata** (Cut-leaved Weeping Birch). Graceful pendant habit; slender, yet vigorous growth. White bark. Leaves finely cut.

—**pendula Youngii**. A tree of striking irregular form and distinctly pendulous habit. White bark.

lenta (Sweet Birch). Dark smooth bark of an aromatic odor and agreeable sweet flavor.

lutea (Yellow Birch). Sometimes confounded with Lenta, but quite distinct, its yellow bark alone identifying it.

nigra (Red Birch). Distinguished by its shaggy red bark. Does best in damp soil.

papyrifera (Canoe or Paper Birch). Bark brilliant white, the leaves large and handsome.

Carpinus—Hornbeam

Americana (Hornbeam). Quite similar to the Beech, but the foliage is thinner and form more irregular.

Betulus (European Hornbeam). Thick, dense habit and slow growth. Good for screens and hedges.

Catalpa

Bungei (Umbrella Tree). 8 feet. Grafted 6 feet high it makes a round-headed tree.

Celtis

(See Shrubs.)

Cerasus—Cherry

Jap. rosea pendula. A weeping form of Japanese origin. Grafted on tall stems the branches droop gracefully to the ground. In early May covered with rosy pink flowers. (Standard or Pyramidal.)

serotina (Native Black Cherry). Covered in May with long spikes of white flowers, followed by black cherries.

Sinensis flore plena (Chinese Double-flowering Cherry). Double white flowers.

—**James H Veitch**. The best double flowering pink Japanese Cherry.

Cercis

(See Shrubs.)

Cercidiphyllum—Katsura

Japonicum. Heart-shaped leaves, dark green above and silvery below. Leaf stalks and veins have a purplish tint. Of handsome pyramidal growth. Prefers a damp soil.

Cladrastis—Yellow Wood

tinctoria. A beautiful American tree of globular form bearing racemes of white sweet-scented pea-shaped flowers in June.



Catalpa Bungei



Weeping Cherry

Cornus—Dogwood

florida (White Dogwood).

—*pendula* (Weeping Dogwood). Identical with the species, but of distinctly weeping habit.

—*rubra* (Red-flowering Dogwood). Habit and character same as its parent, but bearing deep rose-colored flowers.

For other Species, see Shrubs.

Crataegus—Thorn

Carriere. Foliage of a dark, glossy green; fruit large, dark red, showy.

coccinea (Scarlet-fruited Thorn). Blooms in May, producing white blossoms, succeeded by scarlet fruit; large foliage.

cordata (Washington Thorn). Foliage colors beautifully in Autumn. Abundant red fruit in clusters.

Crus-galli (Cockspur Thorn). With very long and extremely sharp spines. Fruit abundant and bright red. Makes a good hedge.

Oxyacantha (English Hawthorn). A tree, bearing in early May an abundance of white sweet-scented flowers. Was formerly much used for hedges. Double Pink, White and Scarlet.

Cytissus

Laburnum (Golden Chain). Distinguished for its lovely racemes of yellow flowers in May.

Diospyros—Persimmon

Virginiana (American Persimmon). Flowers small yellowish white.

Euonymus

(See Shrubs.)

Fraxinus—Ash

Americana (American Ash). An excellent shade and ornamental tree.

Fagus—Beech

We especially commend the Beeches for lawn and ornamental planting because of their great beauty and enduring character. When transplanting, be careful to prune severely and judiciously, leaving a good supply of strong, well-developed buds. Beeches branched to the ground are in that shape the best trees for screens.

ferruginea (American Beech). Attractive at all times, but markedly so in Winter and early Spring on account of its light-colored bark.

sylvatica (English Beech). Of more dense habit than the American, and without its light-colored bark.

—*heterophylla* (Fern-leaved Beech). Leaves very much dissected and fern-like. Habit dense and symmetrical.

—*pendula* (Weeping Beech). Most unique in habit and form of all weeping trees, and where it has sufficient room for development, the best.

—*purpurea* (Copper Beech). In character and habit like the English Beech. Foliage of copper color, and not so large as the Rivers.

—*pendula* (Purple-leaved Weeping Beech). Similar in form and appearance to the Weeping Beech. Color of foliage is deep purple.

—*Riversii* (Rivers' Beech). Where a large and enduring tree of purple foliage is wanted, no mistake will be made in planting this. Needs full exposure to sunlight for best development and enduring color.

Halesia

(See Shrubs.)

Koelreuteria—Varnish Tree

paniculata. Forms a flat spreading head, has large pinnate leaves, and in July produces immense panicles of orange-yellow flowers.

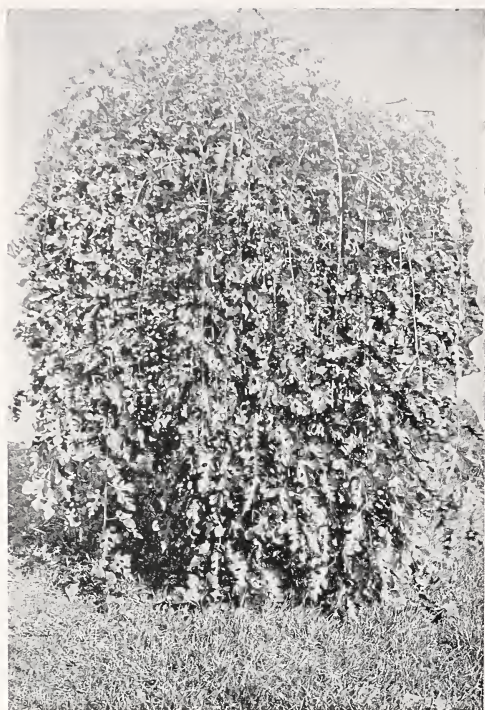
Larix—Larch

European. A pyramidal, coniferous tree, remarkable for its beautiful light green foliage in early Spring.

leptolepis (Japan Larch). The foliage, when young, is of light green, changing to a fine golden yellow in Autumn.

Liquidambar—Sweet Gum

styraciflua. A tree with star-shaped leaves; desirable for its beautiful Fall coloring. Thrives in low, wet soil, although doing well in all locations. Prune closely.



Weeping Mulberry

Liriodendron—Tulip Tree

tulipifera. Large, handsome green leaves; flowers in early June, tulip shape, greenish yellow, blotched with orange.

Magnolia

acuminata (Cucumber Tree). One of the largest Magnolias, of rapid growth, forming a pyramidal tree of much beauty; flowers yellowish white, in latter May.

alba superba. White flowers.

glauca (Sweet Bay). A small tree nearly evergreen. Thrives very well on upland soil, and is esteemed for its delicate, sweet-scented flowers, appearing in June.

hypoleuca. A stately ornamental tree with large leaves. Good for avenues and streets.

Lennei (Lenne's Magnolia). A desirable sort because of its distinct color and abundant bloom. Flowers purple-red.

Soulangeana. Flowers large, pink on outside of petals and white within.

stellata syn. Halleana. A dwarf species; flowers white, semi-double; fragrant. Earliest blooming variety.

tripetala (Umbrella Tree). A tree with large, fresh green leaves and large white flowers in latter May.

Malus (Pyrus)—Flowering Apple

Coronarius (Fragrant Flowering Crab). Bearing profusion of pink blossoms about middle of May.

floribunda. Rose-red single flowers, very showy. Fruit small, bright red in Autumn.

—**Atrosanguinea.** A darker flowered variety of *M. floribunda*—quite conspicuous.

Ioensis (Bechtel's Flowering Crab). Tree covered in early Spring with large, double, fragrant flowers of a delicate pink color.

Parkmani. (Parkman's Flowering Crab). Bearing in May an abundance of rosy-pink flowers, in bunches, on long green stems.

Scheideckeri. A double-flowered form of the above.

Morus—Mulberry

Tartarica Pendula. (Tea's Weeping.) The best dwarf weeping tree; the branches droop gracefully to the ground.

Ostrya Virginica—Iron Wood

A native shrub—useful in low grounds.

Oxydendron

(See Shrubs.)

Paulownia—Empress Tree

imperialis. A tree with immense leaves and decidedly tropical appearance, bearing very large panicles of blue, trumpet-shaped, sweet-scented flowers in June.

For Dwarf PAVIA, see Shrubs.

Phellodendron—Chinese Cork Tree

Amurense. Leaves resembling the Ash; greenish white flowers in May and brown, nearly black, berries in Autumn.

Platanus—Plane Tree, Sycamore

occidentalis (American Sycamore, or Buttonwood). Of rapid growth and large size; leaves heart-shaped, with sharp-pointed lobes.

orientalis (Oriental Plane.) A wide-spreading tree of rapid growth, much used in Europe for avenues in cities and rapidly gaining popularity here for the same purpose.



Lombardy Poplar

Populus—Poplar

Alba Bolleana. Of erect pyramidal growth; silvery foliage. A tree of distinct and striking character.

balsamifera (Balsam Poplar, or Balm of Gilead). A tree of rapid, luxuriant growth, with very large, glossy leaves.

fastigiata (Lombardy Poplar). A striking tree; tall growing, pyramidal shaped tree, used for screening.

monolifera (Carolina Poplar). Of strong, rapid growth, handsome green foliage. Is much planted where quick effects are wanted.

Suaveolens. A poplar different from the other kinds with attractive foliage and quite substantial wood.

Prunus

(See Shrubs.)

Ptelea—Hop Tree

trifoliata. A small shrubby tree, bearing clusters of white flowers in June, followed by hop-like seeds in Autumn.

Pyrus—Mountain Ash

(See Sorbus and Malus.)

Quercus—Oak

Possibly no other species of tree equals the Oak in all its characteristics; certainly none compare with it in enduring majesty. No tree is better suited for avenues on extensive places, and for this purpose it is steadily gaining ground

in cities as well, though its complete adaptability is by no means established. The large-growing sorts, given room for development, have few equals for lawns. Prune severely when transplanting.

alba (White Oak). A noble and enduring tree of great beauty. Requires a large space for proper development.

bicolor (Swamp White Oak). Handsome, large sinuate-toothed leaves, which turn to a bright scarlet in Autumn.

Cerris (Turkey Oak). Medium size; thick, dense growth; foliage green until killed by frost.

coccinea (Scarlet Oak). Especially attractive in Autumn, when the leaves change to a bright scarlet.

macrocarpa (Mossy Cup Oak).

palustris (Pin Oak). Leaves deep green and finely divided; grown singly, it should be allowed to branch low. Makes a fine avenue tree.

Phellos (Willow Oak). Pyramidal form, leaves like the Willow, very persistent, and retaining their green color until late in Autumn.

Prinus (Chestnut Oak). Resembling a Chestnut tree.

rubra. In Autumn the foliage turns a purplish crimson.

Rhamnus

(See Shrubs.)

Rhus

(See Shrubs.)

Robinia—Locust

(See Shrubs.)

Salisburia

Adiantifolia (Ginkgo, or Maiden Hair Tree).

One of the most beautiful of Japanese trees. Medium size; growth quite rapid and very handsome; distinct fan-like foliage.



Weeping Willow

Salix—Willow

Babylonica (Weeping Willow). A particularly graceful tree.

Solomoni (Solomon's Weeping). Very similar to Thurlow's Weeping Willow—slightly more pendulous.



European Linden.

Caprea (Pussy Willow). The well known kind.
pentandra (Laurel-leaved Willow). Foliage bright shining green, adherent until late Autumn. A valuable seashore tree.

rosmarinifolia (Rosemary Willow). Makes a handsome dwarf ornamental tree, with light green foliage.

elegantissima (Thurlow's Weeping Willow). Similar to, but more upright-growing than *Babylonica*.

vitellina aurea (Golden Bark Willow). Bark of a golden color; especially attractive in Winter.

—**Britzensis**. Conspicuous in Winter, when its red bark is most attractive.

—**pendula**. Of splendid weeping habit. It is considered hardier than *Salix Babylonica*.

Sorbus—Mountain Ash

Aucuparia (European Mountain Ash). Handsome small tree, bearing clusters of bright red berries in Fall.

—**pendula** (Weeping Mountain Ash).

—**quercifolia** (Oak-leaved Mountain Ash). Habit pyramidal, with deeply lobed Oak-like leaves, green above and pubescent underneath.

Tilia—Linden, or Lime

Americana (American Linden). A tree of large size. Large heart-shaped leaves, fragrant flowers.

Europaea Alba Argentea. (Silver Leaf Linden). Of symmetrical habit. Leaves green above and silvery white beneath.

—**Spectabilis Tomentosa**. Is similar to Silver Linden; leaves are larger and more glossy and more persistent, hanging on to the tree until late Fall.

—**platyphylla** (Broad-leaved European Linden). A tree about the same size as *Tilia vulgaris*, but easily distinguished by its larger and rougher leaves.

—**vulgaris** (European Small-leaved Linden). Makes a compact, erect growth, but not so rapid or large as the American variety. Leaves smaller and flowers fragrant.

Virgilia

(See *Cladastrus*.)



American Elm

Ulmus—Elm

Americana (American Elm). A large, lofty-growing tree, the limbs of which droop in wide sweeping curves that are particularly attractive and graceful.

—**pendula** (Camperdown Weeping Elm). Grafted 6 to 7 feet high this forms one of the most distinct and picturesque drooping trees.

Wheatleyi (Pyramidal Elm).

List of Trees for Avenue or Street Planting

Suitable also for the lawn where there is sufficient space. Described in their respective places in the catalogue.

Deciduous Trees

- | | |
|---|--|
| <i>Acer dasycarpum</i> . (Silver Maple.) | <i>Populus fastigiata</i> . (Lombardy Poplar.) |
| — <i>Wieri</i> . (Wier's Silver Maple.) | — <i>monilifera</i> . (Carolina Poplar.) |
| — <i>platanoides</i> . (Norway Maple.) | <i>Quercus coccinea</i> . (Scarlet Oak.) |
| — <i>rubrum</i> . (Red Maple.) | — <i>palustris</i> . (Pin Oak.) |
| — <i>saccharum</i> . (Sugar Maple.) | — <i>rubra</i> . (Red Oak.) |
| <i>Aesculus hippocastanum</i> . (English Horse Chestnut.) | <i>Salisburia adiantifolia</i> . (Maidenhair.) |
| <i>Fraxinus Americana</i> . (American White Ash.) | <i>Tilia Americana</i> . (American Linden.) |
| <i>Liquidambar styraciflua</i> . (Sweet Gum.) | — <i>vulgaris</i> . (European Linden.) |
| <i>Liriodendron tulipifera</i> . (Tulip Tree.) | — <i>platyphylla</i> . (Lime Tree.) |
| <i>Magnolia acuminata</i> . (Cucumber Tree.) | — <i>tomentosa</i> . (Silver-leaved Linden.) |
| <i>Platanus orientalis</i> . (Oriental Plane.) | <i>Ulmus Americana</i> . (American Elm.) |

Weeping Trees

- | | |
|---|---|
| <i>Acer dasycarpum Wier's</i> . (Wier's Maple.) | <i>Morus pendula</i> . (Teas' Weeping Mulberry.) |
| <i>Betula alba laciniata</i> . (Cut-leaved Birch.) | <i>Salix Babylonica</i> . (Weeping Willow.) |
| — <i>Youngii</i> . (Young's Weeping Birch.) | <i>Sorbus Aucuparia pendula</i> . (Weeping Mountain Ash.) |
| <i>Cerasus rosea pendula</i> . (Weeping Cherry.) | <i>Ulmus scabra pendula</i> . (Camperdown Elm.) |
| <i>Cornus florida pendula</i> . (Weeping Dogwood.) | |
| <i>Fagus sylvatica pendula</i> . (Weeping Beech.) | |
| — <i>purpurea pendula</i> . (Purple Weeping Beech.) | |

Flowering and Ornamental Fruited Trees

- | | |
|--|--|
| <i>Aesculus</i> . (Horse Chestnut.) | <i>Crataegus</i> . (Hawthorn.) In variety. |
| <i>Amelanchier</i> . (Snowy Mespilus.) | <i>Koelreuteria</i> . (Varnish Tree.) |
| <i>Amygdalus</i> . (Peach.) In variety. | <i>Laburnum</i> . (Golden Chain.) |
| <i>Aralia</i> . (Hecules Club.) | <i>Magnolia</i> . In variety. |
| <i>Benzoin</i> . (Spicewood.) | <i>Oxydendron arborea</i> . (Sorrel Tree.) |
| <i>Cerasus</i> . (Cherry.) In variety. | <i>Paulownia</i> . (Empress Tree.) |
| <i>Cercis</i> . (Judas.) | <i>Pyrus</i> . (Flowering Apple.) |
| <i>Cladrastis tinctoria</i> . (Yellow Wood.) | <i>Sorbus Aucuparia</i> . (Mountain Ash.) |
| <i>Cornus</i> . (Dogwood.) | |

Trees with Bright-Colored Bark in Winter

- | | |
|----------------------------------|----------------------------|
| <i>Acer Pennsylvanicum</i> . | |
| <i>Betula alba</i> . In variety. | <i>Salix Britzensis</i> . |
| <i>Salix vitellina aurea</i> . | <i>Tilia</i> . In variety. |

DECIDUOUS SHRUBS

The use of shrubbery about the home adds materially to the beauty and attractiveness of the place and affords opportunity for a display of artistic development with the varying color of foliage and flowers, and different habits of growth. Shrubs provide material of a permanent character for the adornment of property at less cost and more effectively than anything else.

Pruning

The practice of indiscriminate pruning of shrubs in Winter should be discouraged since, by doing so, you will in most sorts cut away the flower-bearing wood and when the season of bloom is come suffer disappointment in consequence.

The early April, May and June shrubs are of this character and what pruning they receive should be done after the period of bloom.

The late Summer and Fall-blooming species bear flowers on wood of the same season's growth, and the more of this you have the greater the amount of bloom. Severe Winter pruning tends, for a time at least, to encourage strong new growth, though unquestionably it tends, too, to lower vitality and should not, therefore, be practiced continually.

Indeed, the object of pruning should be chiefly to accentuate the beauties of natural forms, which are always best, and should as much as possible be sought for. To this end thin judiciously and cut back sparingly, remembering to do this at the seasons and for the reasons stated. It is better in small places to use small and dwarf shrubs and allow free development, rather than the large-growing sorts that, to be kept within bounds, must suffer mutilation and disfigurement.

Acer Japonicum—Japanese Maple

The Japan Maples are trees of dwarf habit, with very graceful and often deeply colored foliage. They may be treated as shrubs in masses, and for this reason we group them separately. There are a great many variations in these trees, but we select only the most pronounced, hardiest and best.

—**aureum** (Golden-leaved Maple). Foliage of pronounced golden color.

—**polymorphum** (Green Leaved). The parent type of most Japan Maples.

—**atropurpureum**. (Purple Leaved.) Foliage of intense purple, and in early Spring especially beautiful.

—**dissectum**. (Green Cutleaf). The foliage of this and the next variety is indeed most handsome, the habit dwarf and pendulous.

—**atro-purpurea dissectum** (Purple Cutleaf). A variety with deeply cut almost fern-life foliage of dwarf and pendulous habit; green and purple.

Amelanchier—Mespilus

Botryapium (Dwarf Juneberry). Leaves and flower-stalk whitish woolly when young; showy white flowers in April; fruit juicy; of good flavor.

Amorpha Canescens—Lead Plant

Deep blue flowers—foliage light grey—hairy. **fruticosa** (False Indigo). Whitish foliage, and abundant spikes of chocolate-colored flowers.

Amygdalus—Flowering Almond

Pink and white varieties. The long shoots of these shrubs are full of double white and Rose-like blossoms in early Spring.

Andromeda Arborea

(See Oxydendron.)

Mariana (Stagger Bush). A beautiful species, bearing a profusion of white waxy flowers.

For Evergreen Sorts, see Evergreen Shrubs.

Aralia—Hercules Club

pentaphylla. A prickly shrub or small tree, with lustrous bright green foliage.

spinosa (Hercules' Club). Tree of small size, with very prickly stem and tropical appearance. Immense panicles of white flowers in August.

Aronia Arbutifolia

(Black Chokeberry.)

Nigra. Bearing clusters of white flowers in May, followed by glossy black berries.

rubra (Red Chokeberry). Similar to Nigra, flowers followed by brilliant red berries. Both are suitable for planting in low grounds.



Japan Maple

Azalea

arborescens (Wood Honeysuckle.) Its pinkish white flowers appear about July 10th. It can be grown successfully in the woods or in open situations.

calendulacea (Flame-colored Azalea.) Blooms in latter part of May. Brilliant orange yellow flowers.

kaempferi. From Japan. Brick red, medium-sized flowers.

mollis (Japanese Azalea.) Dwarf shrub, bearing an abundance of large, bright red and yellow blossoms.

nudiflora (Pinxter Flower.) A shrub bearing a profusion of pink blossoms about the middle of May.

Vaseyi (Carolina Azalea.) Bears in June a profusion of delicate pink flowers.

viscosa (Small White Azalea.) Bears in latter June pure white, exceedingly fragrant flowers. (See also Evergreen Shrubs.)

Baccharis—Groundsel Bush

halimifolia. A valuable shrub for the seashore. Blooms in late Summer.

Berberis—Barberry

Hakodate. A vigorous grower with dark green foliage.

Thunbergii (Japanese Barberry.) Of very dense, dwarf, spreading habit. Foliage neat and abundant, coloring gorgeously in Autumn. Makes an excellent ornamental hedge. Scarlet fruit adherent nearly all Winter.

vulgaris (Common Barberry.) Of erect growth and with prickly stems, bearing pretty yellow flowers in May. Fruit purplish red, abundant and adherent.

—**purpurea**. A purple-leaved shrub of upright habit and prickly stem, bearing an abundance of yellow flowers in May and reddish-purple fruit in Autumn. Adherent nearly all Winter. (See also Evergreen Shrubs.)

Buddleia

variabilis (Sweet-scented Buddleia.) A very handsome species with showy, fragrant lilac and orange-yellow flowers.

—**Veitchii**. A much improved variety, more vigorous and producing flower spikes 20 inches long by 3 inches broad. Color violet-mauve with orange-yellow center.

Callicarpa

purpurea. A dwarf shrub, bearing small, light purple flowers in July, followed in Autumn by violet-purple berries in great profusion.

Calycanthus—Sweet Shrub

floridus (Strawberry Shrub.) Prized for its brown, fragrant flowers in May; the whole plant is aromatic.

Caragana—Siberian Pea Tree

arborescens. June. Showy, small yellow flowers. Dark green wood and neat foliage.

Caryopteris—Blue Spirea

mastacanthus. A late-blooming shrub, bearing in the axil of each leaf a bunch of bright blue flowers. Flowers through September and October. Requires protected situation.

Ceanothus—Jersey Tea

Americanus. A dwarf shrub, bearing a profusion of white flowers in panicles in June.

Celtis—Nettle Tree

occidentalis. A large, native tree, much resembling the Elm.

Cephalanthus—Button Bush

occidentalis. Shrub, bearing globular heads of white flowers in July.

Cercis—Judas Tree

Canadensis (American Judas). A small tree, bearing an abundance of rosy-pink flowers in early May before the leaves appear. Foliage heart-shaped and shining green.

Chionanthus—White Fringe

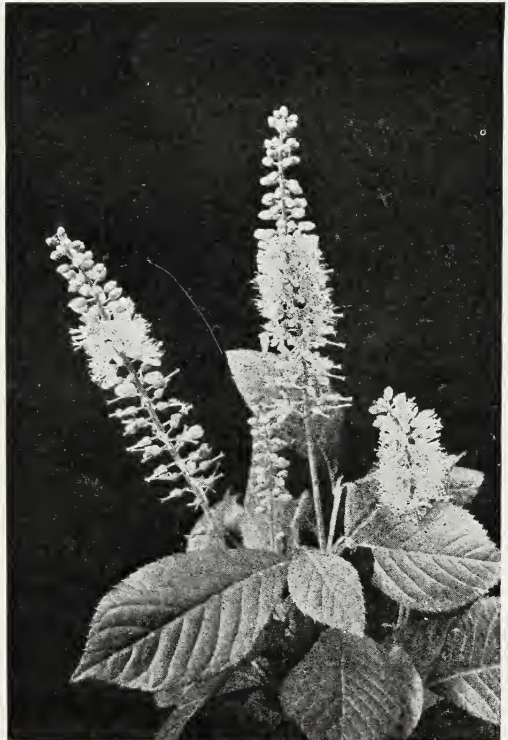
Virginica. A large-growing shrub, bearing racemes of fringe-like white flowers in latter May.

Clethra—Sweet Pepper Bush

alnifolia. A shrub, bearing profusely spikes of yellowish-white, scented flowers in August.

Colutea—Bladder Senna

arborescens. A large-growing shrub, bearing yellow pea-shaped flowers in early June, followed by large, inflated seed pods.

Corchorus (See Kerria)

Clethra Alnifolia



Deutzia Gracilis

Cornus—Dogwood

alba Siberica, (Red-twigged Dogwood). Flowers white, in June. It is valued chiefly for its blood-red bark in Winter.

—**elegantissima** (White Variegated Dogwood). Of dwarf habit; with variegated foliage and blood-red bark.

—**Spaethi** (Golden-leaved Dogwood). Similar to *C. sanguinea variegata*, except in this we have yellow instead of white variegation.

alternifolia (Blue Dogwood). The peculiar arrangement of the branches gives the shrub a flattened aspect. The bark is greenish, striped with white; fruit deep blue.

Kousa. A small tree, native of China and Japan. Flowers creamy white, appearing after the leaves in June and contrasting finely with the green foliage.

mascula (Cornelian Cherry). Native of Europe, distinguished in very early Spring by its dense clusters of small yellow flowers, and in late Summer by large bright red fruit.

paniculata (Gray Dogwood). Free flowering; very handsome when in bloom with its white fruit on red peduncles in the Fall.

sericea (Silky Dogwood). This reddish stemmed sort is a late bloomer and its corymbs of white flowers appear about the end of June. Its blue berries in October are very pretty.

stolonifera lutea aurea (Golden-barked Dogwood). A striking contrast when planted with the red-barked variety.

For other *Cornus*, see *Deciduous Trees*

Corylus—Hazel Nut

Avellana (European Hazel Nut).

(See also Fruit Department.)

—**purpurea** (Purple Hazel Nut). Leaves a deep purple, fading as the season advances to a lighter tint.

Crataegus

(See *Trees*)

Cydonia—Japan Quince

Japonica. The plant in early Spring is enveloped in bloom of a rich red color.

Mauli (Dwarf Flg. Quince). Orange-colored flowers.

Desmodium

penduliflorum. A low shrub with rose-colored flowers in September. Dies to the ground in Winter.

Deutzia

candidissima (Double White Deutzia). Flowers very double and snow white.

crenata fl. pl. (Double Pink Deutzia). Flowers double, distinctly marked on the outside of the petals with pink or red stripes.

gracilis (Slender Deutzia). Of dwarf and bushy habit, bearing racemes of pure white drooping flowers.

Lemoinei (Lemoine's Deutzia). White flower. A hybrid between *Gracilis* and the tall-growing varieties.

parviflora. A native of Northern China. Stems covered in June with creamy white flowers, in large corymbs.

Fride of Rochester (Large Flowered Deutzia). Is very double, floriferous, and the petals faintly tinged with rose.

Diervilla

(See *Weigela*)

Trifida. Native plant adapted to shady positions. Small yellow flower. Good foliage.

Eleagnus

Angustifolia (Russian Olive). A large shrub, sometimes forming a small tree, with long, narrow, silvery-green foliage; flowers yellow, followed by yellow fruit.

Longipes (Goumi). Of dwarf spreading habit. Leaves dark green above, silvery beneath; flowers yellow; fruit bright red.

Euonymus—Strawberry Tree

alatus. Corky bark. Of dwarf, compact habit. Leaves small, followed by red fruit in Autumn. Beautiful when the foliage turns to a bright red in Autumn.

Americana (Burning Bush). A tall-growing shrub with deep purple flowers in June. Fruit scarlet in Autumn. Broad foliage.

Bungeanus. A strong grower. Beautiful yellow fruit. Bright fall coloring.

Europaea (English Strawberry Bush). A shrubby tree, and valued for its ornamental fruit, which is adherent nearly all Winter.

Exochorda

grandiflora (Pearl Bush). A beautiful shrub, bearing racemes of large white flowers, covering the bush about the middle of May.

Forsythia—Golden Bell

Fortunei. Bears golden-yellow flowers in great abundance before the leaves expand in early Spring.

intermedia. Slender, erect, sometimes arching branches, very floriferous.

suspensa (Weeping Forsythia). Growth more delicate and slender than the preceding, and habit more pendent.

viridissima (Dark Green Forsythia). Robust grower; habit straggling; flowers and bark of more intense color.

Genista

scoparia (Scotch Broom). This plant bears golden-yellow blossoms in June and attracts attention when grown in masses. Requires protected situation.

Halesia—Silver Bell

tetraptera. A most interesting and desirable shrubby tree, bearing pendent bell-shaped white flowers in May.

Hamamelis—Witch Hazel

Virginiana. An interesting shrub of large growth, bearing ribbons of bright yellow blossoms in late Autumn.

Hibiscus—Rose of Sharon—Althea

Syriacus. Well known and valuable shrubs for their abundant and continuous bloom through August and September.

variegata. Flowers double, purple, variegated foliage.

Hydrangea

arborescens grandiflora alba (Hills of Snow). This bears large clusters of sterile flowers, clear white. Very lasting, and are borne abundantly in Midsummer.

nivea, or radiata. Large, heart-shaped foliage, bright and silvery beneath. Flowers are white, in flat corymbs.

Okaksa. Foliage deep green; flowers rose-colored in immense trusses in July. Requires protection in Winter.

paniculata (Panicle Hydrangea). A vigorous Japanese shrub, bearing long, loose panicles of white flowers.

—**grandiflora.** The well-known and popular Hydrangea, bearing immense pyramidal panicles of flowers from August to frost.

Hypericum—St. John's Wort

aureum. An upright, hardy shrub, bearing a great profusion of golden-yellow flowers in latter Summer.

densiflorum (Shrubby St. John's Wort). A species with large clusters of yellow flowers appearing July.

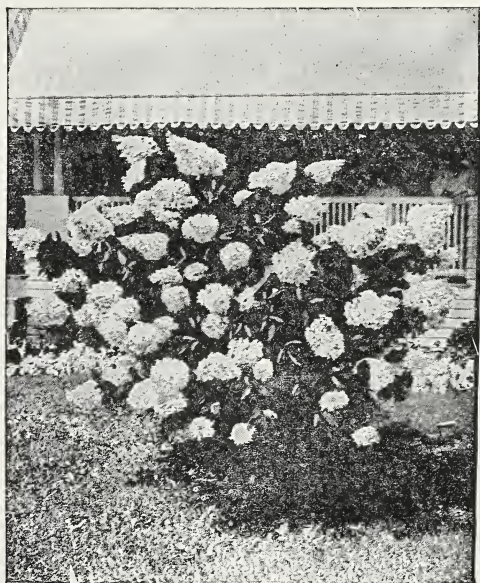
kalmianum. A native shrub with yellow flowers.

Ilex

verticillata (Black Alder). A fine shrub of upright habit and dark-colored bark, particularly attractive in late Autumn and early Winter on account of its abundant bright red berries.

Itea

Virginica (Virginian Willow). A pretty shrub; quite rare, bearing white flowers in June. Valuable for its rich coloring in Autumn.



Hydrangea Paniculata Grandiflora

Jasminum

nudiflorum. A small, slender shrub, bearing yellow flowers in March or April, or even earlier, if the weather is very mild. Of twining habit and will cover a trellis.

Kerria—Corchorus

Japonica. A slender green-branched shrub, of spreading habit, with globular yellow single and double flowers, blooming from June to October.

—**variegata.** A delicate-twigged, dwarf shrub with white and green variegated leaves and single pale yellow flowers.

Laurus Benzoin—Spice Bush

A small shrubby tree. Smooth, dark-colored bark and dark green leaves. The whole plant is fragrant. Yellow flowers in early Spring, before the leaves appear, and scarlet fruit in Summer.

Lespedeza—Desmodium

bicolor (Bush Clover). A shrub from Japan, with slender branches, becoming tall and graceful; foliage resembles Clover leaf; small purple flowers in July.

Ligustrum—Privet

Amurense (Amoor River Privet). The Chinese variety, hardy, with dark green leaves, which persist almost through the Winter.

ciliatum, syn. medium. Spreading habit. One of the hardiest kinds. Drops its leaves early, revealing an abundance of black berries which make the plant very attractive.

Ibota (Japan Privet). A distinct and valuable, hardy variety.

—**Regelianum.** A low, dense shrub, with almost horizontal spreading pendent branches. Leaves are oblong or obovate.

Lucidum. Glossy green foliage of good size.



Sweet Syringa

ovalifolium (California Privet). The well-known variety so extensively used for hedging.

—**aurea** (Golden). A variety of the above beautifully marked with yellow and very ornamental.

Pulaski (Polish Privet). Claimed to be the hardest privet grown. From Poland.

Vulgaris (European Privet). Leaves dark green. Large black seeds.

Lonicera—Bush Honeysuckle

Alberti. A small creeping variety with nice lilac colored flowers.

fragrantissima. An irregular spreading shrub, bearing in great profusion creamy white, exceedingly fragrant flowers, very early in Spring. Nearly evergreen.

Maacki. This grand Bush Honeysuckle grows to a height of 10 feet, covered with trumpet-shaped white flowers in Spring, followed by bright red berries.

Morrowi (Morrowi Honeysuckle). Cream-white flowers, followed later by a great profusion of amber and red fruit.

Ruprechtiana (Manchurian Honeysuckle). An excellent variety bearing an abundance of berries.

Tatarica (Upright Tartarian Honeysuckle). In colors of pink, red and white; very handsome and attractive shrub in flower and fruit.

Myrica—Bayberry

cerifera {Candleberry, or Wax Myrtle}. A handsome, dense-growing shrub of rounded habit, with rich, dark green, persistent foliage. A shrub thriving in the poorest soils and most exposed situations.

Oxydendrum—Sorrel Tree (Andromeda)

arborea. A valuable medium-sized tree or large shrub, bearing racemes of white flowers in Mid-summer. Autumn foliage a brilliant crimson and very showy.

Pavia—Dwarf Horse Chestnut

macrostachya. Irregular habit; from the apex of each shoot a panicle of white flowers is produced in July.

Philadelphus—Mock Orange

The *Philadelphus* are most valuable shrubs. They are hardy, have good foliage and bear a profusion of flowers, nearly all of which have a marked and pleasing odor. Their season of bloom is just after the *Diervillas* and early *Spiraeas*. Are suited for planting singly as specimens or in the shrubby border.

Avalanche. Flowers white, smaller than those of *Coronarius*, round, possessing a sweet odor, and producing abundantly. Dwarf.

coronarius (Sweet Syringa). Well known for its sweet-scented white flowers in June.

—**aureus** (Golden Leaf Syringa). Habit dwarf and compact; foliage bright golden.

Gordonianum. A late bloomer, and valuable for this quality. Large, fragrant flowers.

grandiflora. A large-flowered, strong-growing sort.

Potentilla

fruticosa (Shrubby Cinquefoil). A native shrubby species, of erect habit, very compact, long, silky, pubescent leaves. The flowers are pretty, of a bright yellow color.

Prinos

(See *Ilex*)

Prunus—Plum

maritima (Beach Plum). A valuable shrub for seashore planting; low bush, oval leaves; soft, downy underneath. Round purple or crimson fruit.

Pissardi (Purple-leaved Plum). The best purple-leaved plant we have, the color being intense and enduring; flowers white in April.

triloba (Double-flowering Plum). This is planted for its large, double pink flowers which are among the first in May.

Ptelea

(See *Deciduous Trees*.)

Pyrus Japonica

(See *Cydonia*.)

Arbutifolia (*Malus*, see *Trees*.)

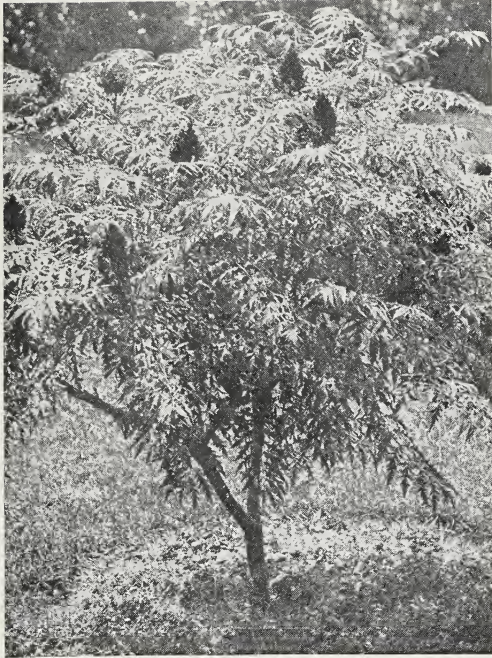
Rhamnus—Buckthorn

cathartica (Common Buckthorn). A fine hardy shrub, with dark green foliage, white flowers and small fruits.

frangula (Carolina Buckthorn). A handsome lawn shrub with greenish flowers; red berries, changing to black in the Fall.

Rhodotypos

kerrioides. A fine shrub, bearing conspicuous white flowers on the ends of the twigs; blooms about the middle of May and continuously for a long time.



Sumach

Rhus—Sumach

aromatica (Fragrant Sumach). Low-spreading shrub with glossy, aromatic foliage.

copallina (Shining Sumach). Beautiful native shrub, glossy foliage, which in the Fall is very brilliant.

Cotinus (Purple Fringe). The well-known Smoke Tree; small, round, glossy foliage. Seed vessels a reddish purple in great profusion.

glabra (Smooth Sumach). Large-growing shrub, with smooth bark. Very effective in Autumn with its crimson seeds and foliage.

—**laciniata** (Cut-leaved Sumach). A beautiful shrub with large leaves, deeply and finely cut, with a drooping, graceful habit. Leaves assume a gorgeous crimson color in Autumn.

Ribes—Currant

aureum (Yellow-flowering Currant.) Flowers yellow, with pink stamens and sweet scented.

Gordonianum (Pink Flg. Currant). Very attractive fall foliage.

sanguineum. Blooms in May, bright pink, almost carmine flowers.

Robinia—Locust

hispidia (Rose Acacia). This is valued for its elegant clusters of rose-colored flowers, which expand toward the close of May, and continue for several weeks. The branches resemble a moss Rose.

(See also Deciduous Trees.)

Rosa—Rose

We class the wild Roses among shrubs since they best fit in such place. They are used largely in shrubbery and hedge borders, where their generally good foliage, graceful habit, abundant bloom and bright fruit seem especially fitting. Also for ground covering.

blanda. Slender red branches, almost thornless; foliage oval, pale green; flowers are large, bright rose-colored, single, blooms in May.

Carolina. The tall-growing Wild Rose, with single pink flowers during the Summer months; its bright red fruit is very showy.

lucida. A native sort of rather dwarf habit. Bears rosy-pink, single flowers in early June, and red fruit in the Fall. Showy in masses on the borders of a wood.

multiflora Japonica. Of very robust habit, making long, arching canes. Covered in June with white fragrant flowers, followed by scarlet hips adherent all Winter.

rubiginosa. The well-known Sweetbrier. The whole plant exhales a delightful fragrance.

rubrifolia (Purple-leaved Rose). This is valued for its beautiful reddish-green foliage, as well as for its pink flowers in early June.

rugosa (Japan Rose.) Its vigorous robust habit, handsome foliage and flowers especially recommend it. The latter possess a delightful fragrance, and are followed by large bright hips, that prolong the attraction of the plant well into the Winter.

—**alba**. Similar in all respects to the preceding except in color of flowers, which are pure white.

setigera (Prairie Rose). Of most vigorous growth and clean, healthy foliage, bearing in July a profusion of delicate pink single flowers on long, arching canes.



Rosa rugosa



Privet Hedge Inclosing a Rose Garden

ROSES

The Rose is the "queen of flowers" and all flower lovers are striving continually to secure and cultivate the best. They are confused often by the plethora of varieties offered.

Their exquisite form and shades in color and their effectiveness for house adornment commend them to all. Their culture is not easy. They require a rich and well drained soil and high culture with abundant plant food.

Mulching at all seasons and close planting insure best results. Before planting prune them severely and indeed annually thereafter. This remark does not apply to climbing roses which must not be so pruned. It is usually enough to cut out old and decayed branches and if desirable shorten the longest shoots. The other sorts here considered bear their flowers on new wood and to secure good blooms a vigorous growth is necessary.

Insect control is essential. Use a tobacco solution for the green aphid; use a tobacco water solution with arsenate of lead as poison for all eating insects. The rose chafer or beetle can only be controlled by catching 'em alive and killing 'em dead.

As soon as the leaves are developed the Rose caterpillar appears and must be looked for and destroyed daily by pinching in its shelter of leaves glued together.

To aid intended purchasers we classify roses as June flowering (Hybrid Perpetuals); ever-blooming (Teas and Hybrid Teas) and the Baby Rambler (Polyantha) type, also everblooming.

The first bloom abundantly in June and some sorts sparingly in Autumn. Are hardier, more easily grown and produce the finest and best flowers. They bear neglect better and are suited for those who are unwilling or unable to give the attention required for the Tea and Hybrid Tea Roses. But for great variety in form and shades of color these are the best and under favorable conditions will bloom continuously from June to November.

The Polyantha roses are recommended for their dwarf habit, their suitability for borders and in masses. Flowers are borne in clusters in pink, red and white and a new variety has distinctly yellow buds, becoming white when fully blown. They bloom all Summer and in masses are effective for house decorations. Are of easy culture.

Use Roses abundantly, care for them intelligently and be rewarded by magnificent flowers. Potted Roses are desirable for late Spring and Summer planting.

Hybrid Perpetual Roses, or June Roses

These are the June Roses, so admirably suited for garden culture, the formation of beds, hedges and permanent plantations, where hardy varieties are desired. In May and June these hardy Roses are brilliant with large, perfumed flowers of richest colors; far excelling

the everblooming class in size and vivid effect. Many of those offered give occasional flowers through the Summer and again in Autumn.

Hybrid Tea Roses, or Everbloomers

This class includes some of the finest varieties. They are very free flowering, fragrant and beautiful, but need some protection during the Winter.

Polyantha Roses, or Baby Rambler

The Polyantha or Baby Rambler Roses are a distinct class of Everblooming Roses, distinguished by their dwarf, bushy habit of growth, medium size and very double flowers, borne in large clusters. They are vigorous growers and constant bloomers.

We just mention these three classes of roses to give the intending purchaser an idea of how they are usually divided according to their flowering qualities. On account of the ever changing list of available kinds and the uncertainty of supply, we give no list of varieties, which however can be had on application.

Climbing Roses

American Pillar. Large single flowers of rich, rosy pink.

Aviateur Bleriot. Yellow. A strong grower, with beautiful foliage and large clusters of medium-sized flowers.

Crimson Rambler. An exceedingly vigorous, rapid grower; handsome, rich, glowing crimson flowers.

Climbing American Beauty. Same as its namesake in size, color and fragrance, with the addition of the climbing habit.

Dr. W. Van Fleet. A delicate shade of flesh pink, deepening to rosy flesh in the center; high center.

Dorothy Perkins. Beautiful shell-pink color, which holds for a long time, fading finally to a lovely, deep rose; very sweet scented.

Excelsa or Red Dorothy Perkins. Intense crimson scarlet; double flowers in brilliant clusters, set in glossy, shining foliage.

Gardenia. Good grower and fine foliage; cream colored flowers.

Hiawatha. Glowing ruby crimson, with a clear, white eye; single flowers in clusters; light, glossy, green foliage.

Pink Rambler. Old fashioned, well known climber. Single flowers.

Silver Moon. Silvery white with a mass of bright yellow stamens; petals of splendid substance and beautifully cupped; exceedingly large, fragrant flowers.

Tausendschon or Thousand Beauties. Varying shades from a delicately flushed white to a deep pink or rosy carmine, in bright clusters of blossoms.

White Dorothy Perkins. A pure white sport from Dorothy Perkins, with which it is identical in foliage and habit.

White Rambler (Thalia). Of Crimson Rambler type, but bearing innumerable clusters of small, pure white flowers.

Wichuraiana (Memorial Rose). Creeping sort, with small, dark green and shining leaves. Flowers single, white, with prominent yellow stamens. Good for covering banks, rocks or similar places.

Yellow Rambler (Aglais). Hardy climbing Rose.

Rubus Odoratus—Flg. Raspberry

Sambucus—Elder

Acutiloba (Cut Leaf Elder).

Canadensis (American Elder). The great cymes of snow-white flowers are exceedingly showy and the Autumn display of deep purplish fruit is likewise attractive.



Elder (Golden)

nigra aurea (Golden Elder). Foliage bright golden yellow, much used for color effect in shrub planting and very desirable.

racemosa (Red-berried Elder). Wood thicker than *Canadensis* and bark warty. Flowers and the red fruit borne on paniculate cymes, the latter ripening in June while the other varieties are still in flower.

Spiraea

An indispensable class of medium-sized shrubs. Of easy culture in all soils. They embrace a wide range of foliage, habit of growth, color of flowers and season of bloom.

Aitchisoni. Similar to *Sorbifolia*, though a stronger grower and the branches being colored red. Grows to a height of 8 feet. Flowers are white.

Billardi. Bright rosy pink flowers in terminal spikes, from July to October.

Bumaldi. Dwarf habit, bearing numerous flat heads of rosy-pink flowers from June until Autumn is well advanced.

—**Anthony Waterer.** Flowers deep crimson, showy and attractive.

Callosa alba. Dwarf. Similar to *Callosa rubra*, but bearing pure white flowers.

—**rosea.** Of upright habit, the terminal shoots and leaves having a rosy tint and bearing flowers of similar color in July.

crispinolia. Very dwarf grower, with peculiar small foliage and red flowers.

opulifolia (Ninebark). Vigorous, upright; white flowers in May.

—**aurea (Golden Ninebark).** A vigorous golden-leaved variety, white flowers in early June.

prunifolia (Bridal Wreath). Bears handsome double white flowers all along the branches in early Spring before the leaves are expanded.

Reevesii. Bears beautiful white flowers in clusters about June 1.



Lilac

rotundifolia. Of irregular form and spreading branches, dark green, nearly round leaves which are adherent until late in Autumn. Showy white flowers in umbel-like racemes in June and July.

salicifolia (Willow-leaved Spirea). Long, narrow, pointed leaves and rose-colored flowers in June and July.

sorbifolia (Ash Leaved Spirea). An upright-growing, irregular-shaped shrub, bearing pinnate foliage of a pleasing light green color. Flowers white, borne in upright panicles in latter June.

Thunbergii (Snow Garland). Of dwarf habit; very graceful; single white flowers before the leaves expand in early Spring, distributed all over the plant.

tomentosa (Steeple Bush). Midsummer blooming variety, bearing pink flowers in panicles.

Van Houttei (Van Houtte's Bridal Wreath). Habit of plant graceful, bearing white flowers in great abundance in latter May.

Staphylea—Bladder Nut

colchica. One of the finest early-flowering shrubs. Flowers white, fragrant, disposed in clusters. Flowers at the same time as the Lilacs.

Stephanandra

flexuosa. A graceful shrub of compact growth, with small, Hawthorn-like leaves. Foliage of good color, delicate, bearing extremely pretty white flowers in June.

Styrax

Japonica. A shrub or small tree of elegant form and habit, bearing white bell-shaped flowers all along the branches, and pendent on long pedicels. Very showy.

Symphoricarpos—Snowberry

racemosus (Snowberry). Much valued for its white berries borne abundantly in Autumn.

vulgaris (Red Indian Currant). Fruit not so large as the preceding, but more abundant. Habit of plant graceful.

Syringa—Lilac

The Lilac is a well-known and deservedly popular shrub. Its thick leathery foliage and lovely sweet-scented flowers commend it to all.

Japonica (Japan Lilac Tree). From Japan, where it attains the height and dignity of a tree. The foliage is abundant and of leathery texture. Flowers white, late, a month after other Lilacs, in large panicles.

Josikaea (Hungarian Lilac). Fine, distinct species, of tree-like growth, with dark, shining leaves and purple flowers in June, after the other Lilacs have finished flowering.

villosa (Hairy-leaved Lilac). Quite distinct from the older Lilacs. Foliage large, not unlike that of the White Fringe. Flowers later than the others, rosy pink, and in large panicles.

Persica (Persian Lilac). Purple. A profuse and early-blooming sort, bearing light purple flowers.

—**alba.** Same habit and form as the preceding, but almost white flowers.

—**Rothomagensis.** Beautiful, reddish purple, large, fine and free-blooming.

—**Saugeana.** Similar to the above named variety.

vulgaris (Common Purple Lilac). Known everywhere and valued for its abundant sweet-scented flowers.

—**alba** (Common White Lilac). White-flowering variety; not so strong a grower as the purple.

—**Alphonse Lavalle.** Very large panicle, beautiful blue, shaded violet.

—**Charles X.** Large panicles of reddish-purple flowers.

—**Madame Casimir Perier.** Creamy white; double.

—**Madame Lemoine.** Double white.

—**Marie Le Graye.** Large panicles of fragrant white flowers.

—**Michael Buchner.** Pale Lilac. Double.

—**President Grevy.** A beautiful blue; individual flowers very double and very large; the panicle is magnificent; one of the finest Lilacs.

—**Rubra de Marly.** Similar in growth to the Common Lilac, bearing purplish flowers.

—**Souvenir de la Spaeth.** The most distinct and beautiful of all the Lilacs; panicles immense and very compact; flowers very large, deep purplish red.

—**Virginalis alba.** Pure single white.

—**Wm. Robinson.** Beautiful violaceous mauve; double.

Tamarix—Tamarisk

Tall shrubs, native of the Eastern hemisphere, but generally hardy in America, especially near the sea, where they thrive exceptionally well. Leaves bright green in color, small and delicate. Flowers pink or rose colored, in panicles.

Africana. Blooms in May; an upright grower.

hispida aestivalis. (Kaschgarica). A handsome and distinct species with bluish foliage and carmine-rose flowers in September.

Vaccinium Corymbosum

The well known wild Blueberry plant.

Viburnum—Snowball

acerifolium (Maple-leaved Arrow-Wood). A medium-sized native shrub, with smooth, slender branches. The white flowers conspicuous and handsome.

cassinoides (White Rod). Of medium size, with erect grayish branches, thick, ovate shining leaves and large cymes of small white flowers.

dentatum (Arrow-Wood). A tall shrub, with slender branches and smooth twigs. Clusters of fruit very dark blue. Found in moist soil, but will succeed elsewhere.

—**molle**. A species very similar to *V. dentatum*; but the foliage and fruit are larger, and it blooms about twenty days later.

dilatatum. From Japan. Low-spreading habit, fine foliage, bearing pure white flowers in May and June. Bright scarlet berries in Autumn.

Lantana (Wayfaring Tree). Leaves heart-shaped, covered with a mealy pubescence beneath. Flowers white in May, followed by pink, red and black fruit with the advancing season.

—**rugosum** (Rough-leaved Viburnum.) Has larger and rougher leaves than *Lantana*, and terminal cymes of white flowers in May. Very ornamental in foliage and fruit.

Lentago (Sheep-Berry.) A large shrub bearing clusters of white flowers toward the end of May. Fine fall color.

Oxycoccos (High Bush Cranberry). An attractive and showy shrub at all times, and particularly in the Fall, when covered with its large red berries.

—**nana** (Dwarf Guelder Rose). Makes a round, cushion-like bush, not over two feet. Valued for its dwarf habit.

—**sterilis** (Common Snowball). A well-known and highly prized shrub for its large balls or masses of white flowers.

Prunifolium (Black Haw). Plum leaf Viburnum. Flowers white.

Rhytidophyllum. Belongs to the Chinese Viburnums and forms a plant of striking appearance, much unlike the ordinary Viburnums.

Sieboldii (Japonicum). Clusters of white flowers in May. The leaves are larger than any other Viburnum, heavy and dark green. Desirable, especially when grown as a specimen shrub.

tomentosum. Single Japan Snowball. A symmetrical, handsome bush, with brown branches and beautifully ribbed foliage, green above and bronzy purple beneath. Pure white flowers on large, flat cymes, succeeded in late Summer by scarlet berries, turning to a blue black.

—**plicatum** (Japan Snowball). Of upright, bushy growth, entirely dark green leaves, and large heads of enduring white flowers; superior to the common sort.

—**Standard** (Tree Form).



Japan Snowball

Vitex—Chaste Shrub

Agnus-castus. A valuable shrub for its August and September bloom. Flowers lilac color in loose panicles.

Weigela

A very ornamental and popular class of shrubs, flowering in latter May and June, in pink, red and white. Adapted to all soils and nearly all locations.

amabilis. Of more irregular form and somewhat pendent habit. A free and intermittent pink blooming variety.

candida. A strong and upright-growing sort bearing pure white flowers.

Eva Rathke. Flowers crimson, making a striking contrast with the white stamens. A most profuse bloomer in Spring and again late Autumn.

floribunda. Crimson flowers, white stamens. Free blooming in the Spring and sparingly in late Summer.

Lavallei. Plant of more vigorous growth and bearing small and deep red flowers.

Lutea, Diervilla (Sessifolia). A shrub bearing yellow flowers in June and at intervals throughout the Summer. Very good foliage.

variegata nana. An excellent variegated leaf plant. Pink flowers.

rosea. Flowers often variable in color, pink, rose and nearly white, being often seen on the same bush. Fine foliage.

Steltzneri. Flowers dark red; form upright.

Xanthorrhiza

Apiifolia (Yellow Root). A native shrub of neat, dwarf habit, especially suited for banks and borders. Flowers plum colored, on racemes in May.

Standard Shrubs in Tree Form

We cultivate a variety of shrubs in tree form, and in certain locations they produce a very good effect. Among the most satisfactory and best we name: **ALTHEAS, HYDRANGEAS, LILAC, PRIVET** and **SNOWBALL**.

Shrubs Bearing Ornamental Fruits

Berberis. (Barberry.) In variety.
Callicarpa purpurea.
Cornus. (Dogwood.) In variety.
Elaeagnus. (Silver Thorn.) In variety.
Euonymus. (Strawberry Tree.) In variety.
Ilex verticillata. (Black Alder.)
Ligustrum. (Privet.) In variety.
Lonicera. (Bush Honeysuckle.) In variety.

Rhodotypos.
Rhus. (Sumach.) In variety.
Ribes. (Flowering Currant.)
Rosa. (Rose.) In variety.
Sambucus. (Elder.) In variety.
Symphoricarpos. (Snowberry.) Red and white.
Viburnum. (Snowball.) In variety.

Shrubs with Variegated Foliage

Berberis purpurea. (Purple Barberry.)
Cornus. (Dogwood.) In variety.
Corylus purpurea. (Purple Hazel.)
Diervilla variegata. (Weigela.)
Hibiscus variegata. (Rose of Sharon.)

Kerria variegata.
Ligustrum aurea. (Golden Privet.)
Prunus Pissardi. (Purple-leaf plum.)
Sambucus nigra aurea. (Golden Elder.)
Spiraea opulifolia aurea. (Golden Spirea.)

Shrubs with Bright Colored Bark in Winter

Cornus alba. Bright red.
 —**elegantissima variegata.** Bright red.
 —**Sibirica.** The most brilliant red of all.

Cornus stolonifera. Dull red or purplish.
 —**lutea.** Bright yellow.
Kerria Japonica. Green.
 —**flore pleno.** Green.

Shrubs Suitable for Planting in Shady Situations

Berberis. (Barberry.) In variety.
Ceanothus. (Jersey Tea.)
Clethra alnifolia. (Sweet Pepper Bush.)
Cornus alba. (Red Branched Dogwood.)
 —**paniculata.**
 —**stolonifera.** (Red Osier.)
Diervilla. (Weigela.) In variety.
Forsythia viridissima.
Ligustrum. (Privet.) In variety.
Lonicera fragrantissima. (Fragrant Bush Honeysuckle.)

Mahonia aquifolia.
Myrica cerifera. (Wax Myrtle.)
Rhus aromatica. (Fragrant Sumach.)
Symphoricarpos racemosus. (Snowberry.)
 —**vulgaris.** (Red Fruited Snowberry.)
Viburnum acerifolium. (Arrow Wood.)
 —**cassinoides.** (White Rod.)
 —**dentatum.** (Arrow Wood.)
 —**Lentago.** (Sheep Berry.)
 —**tomentosum.**

Shrubs for Seashore Planting

Baccharis halimifolia. (Groundsel Shrub.)
Berberis. (Barberry.) In variety.
Cornus. (Dogwood.) In variety.
Hippophae rhamnoides. (Sea Buckthorn.)

Ligustrum vulgaris. (Common Privet.)
Myrica cerifera. (Wax Myrtle.)
Rosa rugosa. (Japanese Rose.)
Tamarix. (Tamarisk.)

Climbing Vines

Those kinds that cling to smooth, perpendicular surfaces by little tendrils or roots we designate as self-climbers, and are the kinds suited to covering walls and buildings. The others require a trellis or support of some sort.

Actinidia

arguta (The Silver Vine.) A Japanese vine of rapid growth, with large leaves, and white flowers with purple center, followed by edible fruit.

Akebia

quinata (Five Leaved Akebia.) A beautiful, rapid-growing vine, bearing curious plum-colored, cinnamon-scented flowers.

Ampelopsis

Engelmanni. Self climber. Is being used to a large extent in the West on account of its hardiness. Otherwise very much like the ordinary Virginia Creeper.

heterophylla, vitis (Variegated Grape). Self climber. A very pretty vine with deeply lobed leaves like the Grape, marbled with white, pink and green. Berries light blue.

quinquefolia (Virginia Creeper.) Self climber. A very useful and handsome climbing shrub, of vivid crimson color in Autumn.

Veitchii (Boston Ivy). Self-climber. Of delicate and graceful habit, and most desirable of all for covering buildings.

Aristolochia—Dutchman's Pipe

Sipho. A robust, vigorous plant, bearing curious pipe-shaped flowers. Very large leaves.

Bignonia

radicans (Common Trumpet Vine). Self-climber. Abundant flowers in July and August; a rampant grower; good for concealing unsightly objects.

grandiflora (Chinese Trumpet Vine). More dwarf than *radicans* and of nearly shrubby habit. Blooms when quite small, bearing yellowish-scarlet flowers in great profusion.

Celastrus

Known as Staff Vine, Bitter Sweet, etc. A very vigorous grower. Its scarlet fruit, adherent nearly all Winter, is an object of much beauty.

Clematis

Among climbing plants none equal the Clematis in the beauty of their flowers. There are an infinite number of varieties among the large-flowering sorts, from which we select the most distinct and vigorous in habit and the most floriferous.

LARGE-FLOWERING SORTS

Duchess of Edinburgh. Fine, large, double white flowers.

Henryi. Large flowering. Handsome and abundant.

Jackmani. Large intense violet purple.

Ville de Lyon. Best red flowering variety.

SMALL-FLOWERING SORTS

paniculata. From Japan. Panicles of small, pure white fragrant flowers borne in great profusion. Very desirable and entirely hardy. Blooms in late Summer.

Euonymus

(See Evergreen Shrubs)

Hedera

Helix (English Ivy). Self-climber. This is well known, and its broad, glossy, dark leaves retain their beauty all Winter if planted on the eastern and northern sides of buildings away from the sun. It is hardy here.

Jasminum

(See Shrubs)

Kudzu Vine

This is a most remarkable rapid-growing perennial vine. The beautiful pea-shaped flowers are borne in racemes 4 to 6 inches long, resembling miniature racemes of Wistaria.

Lonicera—Honeysuckle

Brachypoda (Japanese). Similar to Hall's Evergreen Honeysuckle. Yellow flowers.

—**Aurea** (Japanese Golden.) A golden leaf variety; quite conspicuous.

Halleana (Hall's Japanese Honeysuckle). Of robust growth; abundant foliage and good habit; blooms freely in June and intermittently afterward. Flowers cream yellow and very fragrant.

Heckrotti. A rare variety. The large and showy flowers are most attractive. Rose color on the outside and yellow in the center. Blooms all Summer.

punicea (Scarlet Trumpet Honeysuckle). Very showy.

Lycium

barbatum (Matrimony Vine.) A neat, half climbing plant, bearing small, light pink flowers, followed by scarlet fruit in Autumn.

Wistaria

frutescens (American Wistaria). A free-growing vine bearing racemes 6 to 8 inches long. Flowers lilac in color, appearing abundantly in May.

Magnifica. An improved variety of the above named sort. Flowers early. Large racemes lilac colored.

multijuga. A Japan variety, with dark blue flowers. One of the best Wistarias.

Sinensis (Chinese Wistaria). The best Wistaria. Bears large and handsome racemes of light purple flowers in latter May.

—**alba** (Chinese White Wistaria). Pure white flowers.



Evergreens, showing massed effect of varying types.

EVERGREENS

Evergreens aid materially in giving color to the landscape in Winter; are useful for making windbreaks and hedges, and especially for screening unsightly objects from view; and there is, by judicious selection, a fine opportunity to afford pleasing contrasts of color and habit. They are more difficult to transplant than deciduous trees, must be carefully handled, upon no account permitting the roots to become dry. Use water abundantly and tramp the earth on the roots firmly.

The use of Evergreens in landscape adornment has increased greatly and their value for such purpose is warranted by experience. The dwarf sorts in variety are especially adapted for planting in angles of porches and about the foundations of buildings, and their use in such places, add an air of distinction and beauty that no other class of plants can equal or even rival.

The variation in shades of green and their habit make them most fitting and attractive for such purpose. Large growing and choice sorts on the borders or in groups on the lawn are desirable, and their effectiveness for hedges and windbreaks is well known but too little appreciated.

Are best transplanted in April and May in Spring, and in latter August until November in Autumn. Use them freely and in handling expose the roots as little as possible, watering copiously when planted, and at intervals afterward until there are abundant rains.

Abies—Fir

balsamea (Balsam Fir). The well-known native American Fir; very attractive while young, but grows unsightly with age.

cephalonica (Cephalonian Fir.) Beautiful glossy dark green foliage. Grows in conical form.

concolor (Colorado Fir.) One of the choicest Evergreens, of distinct habit and color, which is a silvery green, and most attractive.

Douglasi (Pseudo Tsuga, Douglas Fir). One of the most desirable Firs. Of excellent quick growth; dull green foliage.

Fraseri (Fraser's Silver Fir). Much resembles Balsam Fir in general appearance, but the color is more pronounced, and it has the merit of enduring beauty.

Nordmanniana (Nordmann's Fir). A noble tree, with large leaves of dark green color, maintained throughout the year.

pectinata (European or Comb-like Silver Fir). Spreading horizontal branches. Foliage broad and silvery.

Veitchii (Veitch's Fir). A rare sort, combining the appearance of *Nobilis* and *Nordmanniana*.

Picea—Spruce

alba (White Spruce). A medium sized native tree; close, pyramidal growth; foliage bluish gray.

Engelmanni. From Colorado; slow growth, dense and regular in form.

excelsa (Norway Spruce). A well-known and widely distributed evergreen of rapid growth; symmetrical form. Hardy everywhere. Invaluable for windbreaks and hedges.

—**conica**. Of very dense and full conical form. Foliage of a lighter shade of color than the type.

—**Gregoriana** (Gregory's Spruce). Of dwarf, hemispherical form, dense habit and dark green foliage. Useful for cemeteries and small places.

—**inverta** (Inverted Norway Spruce). Of curious and varied form, the branches growing downward. Foliage dense.

—**pumila**. Another dwarf and very dense sort with dark foliage. Entirely hardy.

- pygmaea** (Dwarf Spruce). A dense dwarf variety, hardly ever growing more than 3 feet high.
- pyramidalis**. Like the Norway Spruce except the form, which is columnar. Effective in certain locations.
- Omorika** (Servian Spruce). A handsome variety of dwarf and compact habit; foliage a glaucous green, silvery underneath.
- orientalis** (Oriental Spruce). An erect-growing symmetrical tree. Foliage finer and better than Norway Spruce, and in every way a superior tree. Does not grow so large.
- polita** (Tiger Tail Spruce). A slow grower, but distinct and valuable on account of its color and hardness.
- pungens** (Colorado Spruce.) From the Rocky Mountains. A tree of great value; hardy in all locations; of good habit and form, and in color a cheerful tint of green.
- glauca**. The Colorado Spruce seedlings are variable in color, running from light green to intense steel blue. They are alike in form and habit.
- Kosteriana** (Koster's Blue Spruce). A strain of intense color and longer needles; preserved by grafting. They are uniformly reliable and best for that reason.

Andromeda

- Catesbaei** (Leucothoe). Long recurving branches, ovate lanceolate leaves of a rich green in Summer, turning bronze in Winter; flowers white in early Spring. Especially useful in damp and shaded situations.
- floribunda** (Mountain Fetter Bush). Low round-headed bush, bearing abundant spikes of one-sided racemes of pure white flowers in Spring.
- Japonica** (Lily of Valley Tree.) A most desirable and attractive sort with the same general characteristics of the last, but rather more delicate and graceful.



Koster's Blue Spruce



Azalea

Azalea

- amoena**. From China. Very dwarf and bushy foliage, which is abundant, becoming brownish-bronze in Winter. Entirely covered in May with masses of small dark red flowers.
- Hinodigiri**. A grand variety of compact bushy habit, bearing larger leaves than the Amoena. When in bloom literally covered with bright pink flowers.
- Kaempferi** (Rhododendron). A novelty, recently introduced from Japan. The flowers are not very large, but abundant, of a bright red color, foliage is small, shining dark green.
- Yodogawa**. (See also Deciduous Shrubs.) Not entirely evergreen. Flowers handsome mauve color.

Berberis

- ilicifolia** (Holly-leaved Barberry). Large, dark green Holly-like leaves, adherent until well into the Winter.

Biota—Chinese Arborvitae

- Orientalis** (Chinese Arborvitae). The flat growth of the young branches and its bright green color make it interesting and valuable.
- aurea conspicua**. Of compact, erect and symmetrical habit. Foliage intense gold, some of its branches being of a solid metallic tint, others suffused with green.
- compacta** (Chinese Compact Arborvitae). Of dark green color and rounding compact habit of growth.
- elegantissima** (Rollinson's Golden Arborvitae). Of upright, torch-like form. Foliage golden in Summer, bronze in Winter.
- nana aurea** (Berkman's Arborvitae). A variety of recent introduction. Good form and habit. Dwarf.
- pyramidalis** (Chinese Pyramidal Arborvitae). Light green foliage.

Buxus—Box

Arborescens (Common Tree Box, Bush Form). A large shrub with thick leathery dark green leaves. Bears shearing well and can be shaped in any form desired.

Sempervirens Globosa (Globe-shaped Box). Clipped in round globe-shaped form close to the ground.

suffruticosa (Dwarf Box). The well-known Box used for edging, and invaluable for this purpose. It makes, too, a handsome ornamental bush.

Calluna Vulgaris—Scotch Heather

This plant should be more generally known. It is of the easiest possible culture, growing well in ordinary soils. Blooms continuously from July to September.

Cotoneaster

Aplanata. A new variety. Large, glossy foliage.

Horizontalis (Davidiana). One of the best Cotoneasters. Nearly climbing if planted near a wall. Its small shining leaves, with red berries during the Winter make it one of the finest shrubs.

Macrophylla (Small-leaved Cotoneaster). An attractive, low, trailing bush, with very small, glossy, dark green leaves. Red berries in Winter.

Daphne

cneorum (Garland Flowers). Very dwarf habit; small, narrow, abundant foliage. The spreading horizontal branches are covered in Spring with light pink, rosette-like flowers of delicate fragrance.

Cryptomeria Lobbi, Compacta

A graceful and handsome tree. It forms a rather narrow head of somewhat open growth. Foliage is light green and very distinct. Endures the Winter without injury in this latitude.

Euonymus

Sieboldi. Similar to Euonymus Japonica; foliage is not quite so thick and leathery and is hardier.

Japonicus. A broad-leaved Evergreen of handsome color and form, but not entirely hardy.

radicans (Creeping Euonymus). An invaluable plant for covering bare spots in borders. A self-clinging vine or shrubby Evergreen bush as desired. Hardy.

—**Carrieri**. Larger leaves than the ordinary Radicans. Very good.

—**variegata** (Variegated Creeping Euonymus). Very distinctly variegated with white, yellow and pink shades.

—**Vegetus**. A very handsome large leaf variety. Good climber and conspicuous on account of the orange fruit produced in Autumn.

Ilex—Holly

crenata (Japanese Holly). A very attractive Holly from Japan, bearing small, shining, Myrtle-like leaves in great abundance. Not entirely hardy here.

—**Macrophylla**. A small leaved variety of the above.

opaca (American Holly). A beautiful Evergreen, bearing red berries in abundance, contrasting finely with the bright green leaves.

Juniperus—Juniper

Canadensis. A dwarf Juniper of bushy upright growth. Foliage is brownish green, resembling in general appearance *Juniperus communis*, but the latter is of more spreading habit of growth. Valuable for rock-planting.

communis (Common Juniper). Our native prostrate or trailing Juniper, widely scattered over the temperate regions of America. Is of spreading irregular form, growing in rocky and nearly sterile soil. Valuable for covering slopes.

—**aurea** (Douglas' Golden Juniper). Similar in habit and form to the preceding, but the foliage is beautifully tipped with golden color.

—**Cracovica**. Of slow growth, pyramidal, very hardy. Foliage bluish green, and resembles much the following variety, which however grows more rapidly.

—**Hibernica**. The Irish Juniper is of very dense and upright habit. Fine for columnar effects in landscape work.

—**prostrata**. A very much more spreading plant than the type and very valuable for rock-work.

—**Suecica** (Swedish Juniper). More hardy than the Irish Juniper, but not so rapid in growth. Foliage of a yellowish-green tint.

excelsa stricta. One of the most useful and hardy Junipers. Its habit of growth is pyramidal, dense and the foliage is of a pleasing bluish-green color. Being a slow grower it can be used for small hedges and formal plantings.

Japonica (Japan Juniper). A very hardy and reliable sort, of upright rather irregular form.

—**globosa**. A handsome dwarf Juniper growing ball-shaped and of a pleasing green color.

—**variegata** (Japan Var. Juniper). Foliage dotted with white and yellow specks.

Procumbens. Grows very flat, creeping over the ground. Excellent for rock planting. Foliage grey green.

Sabina (Savin Juniper). A low, wide spreading, thickly branched evergreen shrub. Desirable for borders.

—**prostrata**. A very spreading form.

—**tamariscifolia**. A most picturesque half procumbent variety of ironclad hardness and most distinct character.

sinensis. A very hardy Cedar. Bluish green foliage; upright grower.

—**argentea** (Chinese Var. Juniper). Makes a very handsome plant, bluish-green foliage, dotted with white specks.

—**Neoboriense**. An erect, dense grower, somewhat resembling our native Cedar; very hardy and a good grower. Foliage is sea-green.

—**Pfitzeriana**. One of the most striking Junipers of recent production. Grows to a fair-sized plant, with branches spreading nearly horizontally, as broad as tall, the feathery bluish-green foliage giving the plant a very distinct and graceful appearance.

Virginiana (Red Cedar). Form tapering, symmetrical; color good at all times, but its bronzy appearance in Fall and early Winter is very attractive.

—**Cannarti**. A medium size tree resembling very much the type in general habit of growth, differing mostly in slower growth and a deep bronze-green color of the foliage.

- elegantissima**. A distinct and beautiful variety of the Red Cedar, with golden-bronze foliage, particularly attractive in Winter, when the golden bronze of the young growth is contrasted with the dark green of the older.
- glauca**. The compact conical form of this variety, coupled with its light silvery foliage, make it very distinct and attractive. Like the Red Cedar, in all of its forms, it is of iron-clad hardness.
- pendula**. A weeping form of graceful appearance. Dark green foliage.
- Schotti**. A bright green Cedar, of the same habit as the type, but of slower growth and brighter appearance.
- tripartita**. This plant resembles more the Sabina, the habit of growth being spreading, the foliage feathery and of a dark green color. Makes a handsome and distinct plant.
- Waukegan**. This may not belong to the Sabina family, but it is without doubt the very best of the trailing Junipers, of a handsome bluish grey-green color, and hardy. The plant for rockeries.

Kalmia—Laurel

latifolia (Mountain Laurel). A magnificent plant, rivaling the Rhododendron in beauty. Flower buds of a delicate pink, changing to white as they expand and with advancing age. This variety is an abundant bloomer in June.

Mahonia

aquifolia (Holly-leaved Ashberry). A valuable shrub having glossy green leaves and bearing yellow flowers in April. In Fall and Winter the foliage changes to a scarlet-bronze color.

Japonica. A species from Japan, with very broad, spiny foliage, light green color.



Mountain Laurel



Pine

Pinus—Pine

- Austriaca** (Austrian Pine). Well known and valuable for its hardness and constant and intense green color.
- Cembra** (Swiss Stone Pine). Of dwarf habit and dense foliage, ultimately attaining good size.
- densiflora**. A Japanese Pine. Spreading habit. Foliage dark green.
- excelsa** (Bothan Pine). Resembles the white Pine but with longer and pendulous leaves. Very graceful and attractive.
- Flexilis** (Limber Pine). Resembles in habit of growth the Cembra Pine. Is a more rapid grower and more spready.
- Montana** (Swiss Mountain Pine). Forms a medium size, spready tree. Of dark green foliage.
- Mughus** (Dwarf Mountain Pine). Of low and spreading growth.
- monticola** (Mt. White Pine). The White Pine of the West. Does not grow so large as *Pinus Strobus*, but is a valuable tree and not subject to diseases.
- ponderosa**. A rapid-growing Pine, growing to large dimensions. Silvery-green foliage.
- resinosa** (Red Pine). A fine native species; rare and choice. Needles dark green, long, drooping and soft to the touch.
- rigida** (Pitch Pine). Forms an open irregular pyramid with spreading branches. Thrives well near the sea and in poor and sterile soil.
- Strobus** (White Pine). The well-known American timber tree. Hardy and reliable on dry, upland soil.
- sylvestris** (Scotch Pine.) A rapid-growing, handsome tree, especially when young. Good for windbreaks.



Retinispora Pisifera

Retinispora—Japan Cedar

Being of medium growth, they are adapted for small places and for use in Evergreen beds. They bear any amount of shearing, with improvement in density of foliage and change of form if desired. In addition to sorts here named, we offer a limited number of rare varieties.

ericoides. Grows very bushy. Feathery foliage; bronze green.

obtusa. One of the best Retinisporas. Color green in Summer, bronze in Winter.

—**aurea** (Young). Identical with the preceding, except in color, which is of a pronounced golden tint. This is a most desirable tree because of its color, form and habit.

—**compacta.** This is a magnificent form of Obtusa, very dense, with beautiful concave fronds, like green shells.

—**gracilis.** A most graceful and hardy little tree of good form, habit and color. One of the best semi-dwarf trees known.

—**nana.** A compact dwarf-growing variety of the above. Very desirable where a small Evergreen is wanted.

—**aurea.** A golden form of the preceding sort. **pisifera** (Pea Fruited Cypress). Fine feathery foliage; branches glaucous underneath. A beautiful evergreen.

—**aurea** (Golden Pea Fruited). Of loose and open habit; decidedly pendulous. Color constant and good.

plumosa (Plume-like Cypress). A most desirable evergreen of compact growth and delicate glaucous green foliage.

—**argentea** (Silver Variegated). The young growth makes this plant appear to be covered with snowflakes in the summer.

—**aurea** (Golden Betinispora). Widely known and popular, and of great merit.

—**filifera** (Thread Branched). A beautiful evergreen, with long, thread-like pendant foliage.

—**aurea.** Like the preceding, except in color, which is a bright golden. More dwarf in habit.

—**lutescens.** A dwarf-growing variety of pretty and compact habit. Foliage bright and yellow. Very good for formal plantings.

—**squarrosa Veitchi** (Veitch's Cypress). Foliage of compact, tufted character; color steel gray. Grows quite large, bears shearing to almost any size or form.

—**sulphurea.** A sulphur yellow form of the above named variety.



Retinispora Plumosa



A beautiful landscape with massing of Rhododendrons on one side and Azaleas on the other, with background of Evergreens.

Rhododendrons

The Rhododendron is one of the most beautiful broad-leaved evergreens in existence and should be planted wherever conditions permit.

There is no question that a good deal of time, effort and money has been spent in vain trying to grow this plant under most unsuitable conditions.

A semi-shady situation, somewhat sheltered from the strong blasts of the wind and a well drained soil, free from lime, are the first requisites.

Never plant one plant alone. It does not thrive except in company with its own or other plants. It does well planted in beds or in mixed plantings with evergreens.

To have this plant do well, prepare your ground thoroughly, spading it deeply, removing subsoil, if any, and prepare a suitable drainage if the soil is apt to be hard. It is best to dig out the old soil to a depth of 18 inches or 2 feet and refill this space with a loamy soil if it can be had, adding leaf mold and cow manure to it. Tramp the ground well around the roots when planting. Water copiously and leave about a three-inch layer of loose soil on the top of the bed so as to retain the moisture in the ground as long as possible and mulch the bed well with leaves or well rotted manure after the plants are set. Do not dig around the plants. They are surface feeders and deep cultivation will destroy the upper part of the roots.

Pick the withered flowers. Do not allow them to go to seed. It impairs the setting of the flower buds for the following season.

Protect them through the first Winter after planting by setting evergreen boughs or other material between the plants. After that the plants will need but little protection.

On account of the "Exclusion Act" which prevents the importation of plants from foreign countries, the Hybrid Rhododendrons, those which bloom with the various colored flowers, red, pink, white and purple, are very scarce and difficult to obtain. Our native Rhododendron, the Maximum, will, however, to a great extent answer the purpose. While we will miss the beauty of the various colors, it producing only a light pink flower, the evergreen effect will be there just the same, which is really the most important of all. Its foliage being larger and being hardier than the hybrids will make it the more valuable for its purpose.

We can give upon request a list of Hybrid Rhododendrons that we still have in stock but don't know how long they will be available to our customers, the quantity being limited and subject to previous sales.

The Rhododendron Maximum we shall be able to supply in all quantities, from one plant to carload lots. We sell a great many of them as they come collected from the woods in carload lots, which reduces the cost of them to a considerable extent. Prices will be given upon application.

Sciadopitys

verticillata (Umbrella Pine). A beautiful and hardy Evergreen from Japan. Shining dark green foliage arranged in whorls of umbrella-like tufts.

Taxus—Yew

Canadensis (Canadian Yew). Low-spreading, bushy form; grows 4 to 5 feet high, with short leaves, and the bark is of a darker hue than the common Yew. Has small, red berries.

Cuspidata (Japanese Yew). In habit resembling the English Yew, but perfectly hardy and will make an excellent plant.

—**brevifolia**. From Japan and that hardiest of all Yews. Branches somewhat ascending, with dark green foliage.

—**capitata**. Resembles in habit of growth that of *Taxus baccata*. It is a native from Japan, perfectly hardy, and a high-class novelty, which will without doubt win high favor when better known and more distributed.

repandens (Spreading Yew). A low spreading tree or evergreen bush; very luxuriant, with intensely dark green foliage. Entirely hardy.

Thuya—Arborvitae

occidentalis (American Arborvitae). A well-known and very valuable Evergreen for screens, windbreaks and hedges.

—**aurea lutea** (George Peabody). A most desirable Golden Arborvitae. Color pronounced and constant.

—**Boothii**. Foliage resembles that of *compacta*; grows in globe form.

—**Columbian**. Of pyramidal form; new growth tipped with white, making the plant conspicuous and attractive all Summer.

—**compacta** (Parsons'). Form hemispherical; light green foliage. A good dwarf, hardy sort.

—**Ellwangeriana**. Foliage feathery-bronze green. A very pleasing variety. Forms a medium size tree.

—**globosa** (Globe Arborvitae). Globular form; foliage fine and delicate.

—**Hoveyi** (Hovey's Golden Arborvitae). More upright habit, with yellowish-green foliage.

—**Plicata** (*trivifolia*). A very hardy and attractive variety; the leaves resembling the fern fronds. Color bronze green.

—**pyramidalis** (Pyramidal Arborvitae). Of columnar shape; distinct light green, compact foliage.

—**Rosenthali**. A deep green. Very hardy and handsome variety.

—**Spaethii**. An odd-growing kind. Foliage quite peculiarly shaped; dwarf.

—**umbraculifera**. A dark green; globe-shaped kind. Very good color.

—**Vrevaeneana**. Of similar form and denser habit than the type. Foliage handsomely variegated with yellow.

—**Warreana** (Siberian Arborvitae). Most hardy of all Arborvitae. Foliage dark green and dense. Valuable for hedges.

Tsuga—Hemlock

A small genus, frequently classed with the *Abies*, but botanically distinct. As a class they possess remarkable grace and beauty.

Canadensis (Hemlock Spruce). The well-known tree of our American forests. Growth loose and open; habit extremely graceful. Bears shearing well, and makes the most ornamental evergreen hedge.

Caroliniana (Carolina Hemlock). A new species from the Carolina mountains, not so stately as the common species. Small trees.

Sargentii pendula (Sargent's Weeping Hemlock.) Compact and spreading habit, with graceful, spray-like pendulous branches. Permanent weeping habit. Beautiful Evergreen.

Yucca

filamentosa (Adam's Needle). Broad pointed leaves and in Mid-Summer immense panicles of Lily-like white flowers from center of plant attaining height of 4 to 5 feet.



Yucca



HARDY HERBACEOUS PLANTS

The great and increasing popularity of this class of plants has induced us to offer a select list, which we made upon the advice of the best authorities in America, concerning the most effective and desirable plants for lawns and gardens.

Our list, while not so extensive as many, is the very cream of all, and every sort described may be depended on to give entire satisfaction.

Planted in the shrubbery border, or in beds alone, judiciously arranged, they will afford great satisfaction at much less cost than can be obtained by plants from the greenhouse that must be replaced annually. In truth, the one supplements the other, and the bright foliage and flowers of bedding plants, with the more enduring herbaceous ones, are both needed for the complete adornment of rural and suburban homes, but the latter are the most essential and appeal most strongly to our affections, appearing annually as old friends to greet us in Spring, after their Winter sleep.

A suitable selection will give a constant succession of bloom, from early Summer until late Autumn, and increase in size and beauty from year to year.

Figures after specific names indicate approximate height of the plants when in flower.

Achillea—Milfoil, Yarrow

Aconitum

millefolium roseum. 1 to 2 feet. Very handsome. Fern-like foliage, flowers deep pink; July to September. One of the best.

ptarmica (The Pearl). 1 to 2 feet. Double white; very effective; good for cutting; blooms all Summer. June to October.

—*Boule de Neige*. 1 to 2 feet. Double white flowers, resembling blossoms of Bridal-wreath Spirea; continual bloomer; good for cutting. May to September.

tomentosa. 8 to 12 inches. June to September. A neat growing creeping evergreen, with bright yellow flowers; useful for cutting.

autumnale (Monkshood, or Helmet Flower). 3 to 4 feet. Flowers blue, in panicles. A fine flower for cutting. September.

Fischeri. 18 inches. A dwarf variety with very large, pale blue flowers in September and October.

Napellus. 3½ feet. June to September. Flowers dark blue. Fine.

—*albus*. A fine white flowered form. August.

—*bicolor*. Large blue and white flowers; one of the prettiest. August.

**Achillea****Althaea**

rosea (Hollyhock). 4 to 5 feet. Of this old-fashioned and popular flower we offer a good assortment of colors, including the newly introduced and improved Allegheny Hollyhock and the single-flowering varieties.

Alyssum

saxatile (Rock Madwort). 1 foot. Golden yellow flowers, fragrant and showy. One of the best perennials. April and May.

—**compactum**. (Basket of Gold, Gold Tuft, Rock-madwort). 1 foot. Similar to Saxatile, except the plant is more dwarf and flowers more freely.

Anchusa

Italica (Sea Bugloss). 4 feet. A fine species, blooming from May to September. Clear blue flowers.

Anemone

Japonica (Japan Windflower). 2 feet. Rosy pink flowers in September and October.

—**alba**. 2 feet. White; large flowers. September and October.

—**Queen Charlotte**. 2 feet. Large, semi-double flowers; silvery pink in color. September.

—**rosea**. 2 feet. Very floriferous. Flowers semi-double, rosy purple in color. September.

—**Whirlwind**. 2 feet. Producing double white flowers in great profusion in September and October.

Anthemis

tinctoria, **Kelwayi** (Marguerite). 1 to 2 feet. Flowers deep yellow. July to October.

Aquilegia

Columbine. 1 to 2½ feet. In colors; early Spring bloom. April to July.

Arabis

alpina (Rock Cress). 6 to 8 inches. Flowers white, in small racemes in early Spring. April to June.

Armeria

formosa (Thrift). 12 inches. Pink to white. May to August.

Arenaria

caepitosa (Sandwort). 3 inches. Dwarf Evergreen plants, tufted foliage, forming carpets of verdure. May.

Asclepia

tuberosa (Butterfly Weed). 2 feet. Orange-colored flowers. July and August.

Aster

alpinus. 9 inches. Purple flowers in July.

Amellus (Perry's Favorite). 3 feet. New, of very fine pink color.

Beauty of Colwall. 3 feet. Novelty, fine double purple.

Novae-Angliae. 4 feet. Showy purple. September and October.

Robert Parker. 5 feet. Large sprays of large soft lavender-blue flowers with yellow center. Fine.

White Queen. 5 feet. Large white, free flowering.

**Hollyhock**



Campanula

Bocconia

cordata (Plume Poppy). 6 to 7 feet. White flowers. August.

Boltonia

asteroides (False Chamomile). 4 feet. White flowers. August and September.

latisquama. 4 feet. Light lilac. August and September.

Campanula

Carpatica (Bell Flowers). 9 inches. A dwarf plant bearing blue flowers in June.

—*alba*. 9 inches. White flowers. June and July.

Media (Canterbury Bells). 3 feet. Late in June and July. Flowers blue, white and pink. Very showy. Is biennial.

—*Calycanthema*. 3 feet. Cup and saucer Canterbury Bells. Flowers resemble in shape a cup and saucer. June to July.

persicifolia. 1½ feet. Flowers blue. June and July.

—*alba plena*. 1½ feet. Double white. July.

pyramidalis. 3 feet. Blue flowers.

Centaurea

Montana. 20 inches. June to September. Showy, large purple flowers; fine for cutting.

Chrysanthemums

1½ to 2½ feet. In colors. Autumnal blooming plants of much beauty and exceedingly profuse bloom. Hardy sorts only.

Shasta Daisy. 1 to 2 feet. White, flowers all Summer.

uliginosum (Pyrethrum, Giant Daisy). 2 feet. White. August and September.

Convallaria

majalis (Lily of the Valley). 4 to 8 inches. White, pendent, fragrant flowers in early Spring.

Coreopsis

grandiflora (Tickseed). 1½ to 2 feet. Deep orange yellow; excellent for cutting. June and July.

rosea. 12 to 18 inches. July and August. Rosy flowers, very free.

Delphinium

elatum (Hardy Larkspur). 3 to 4 feet. Blue flowers from June to August.

Bella Donna. 3 feet. A beautiful soft shade of blue. Very distinct; flowers all summer.

coelestium. 1½ to 3 feet. Double, pale blue flowers; center violet and dark blue.

formosum. 3 feet. The common Larkspur. Large dark blue flowers. June to August.

Sinensis. 3 feet. Fine cut foliage; blue flowers. July.

—*Alba*. Same as above; flowers white.



Larkspur



Foxglove

Desmodium

(See Deciduous Shrubs)

Dianthus

barbatus. 1 foot. The old and deservedly popular Sweet William. Various colors mixed. June to July.

—**latifolia atrococcinea.** 1 foot. Fiery crimson flowers in large clusters throughout the Summer and Fall.

plumaris (Scotch Pink, or Cinnamon Pink). 1 foot. Very fragrant double flowers. June and July.

Dianthus—Continued

—**Carmen.** 1 foot. Light pink, fragrant flowers.

—**Gertrude.** 1 foot. Rosy carmine, veined with silvery white.

—**Her Majesty.** 1 foot. Very large, double white and exceedingly fragrant. Flowers in June.

Dicentra

spectabilis (Bleeding Heart). 1½ feet. Pink flowers in May.

Digitalis

Foxglove. 2 to 3 feet. An old and well-known species bearing on long spikes an abundance of large and showy blossoms, varying from white to purple. July.

Echinacea

purpurea (Cone Flower). 3 feet. Enduring rosy purple flowers. July to September.

Eupatorium

purpureum (Perennial Ageratum). 5 to 6 feet. A strong-growing plant with branching heads of purple flowers in late Autumn.

Funkia

lancifolia variegata (Plaintain Lily). 1 foot. Handsome foliage distinctly margined with creamy white and yellow. Flowers light purple in July.

subcordata (White Day Lily). 1 foot. Pure white trumpet-shaped flowers and very fragrant. September.

Gaillardia

grandiflora (Blanket Flower). 2 feet. Large yellow flowers with maroon center. All Summer.



Gaillardia

Geum

atrosanguinea (Avens). Attractive, low-growing border plant of easy culture. Large dark red flowers in open heads; blooms all Summer. 1 to 2 feet.

Gypsophila

paniculata (Baby's Breath). 2 feet. Small white flowers in great abundance. July to September.

Helenium

autumnale superbum (Rock, or Sun Rose). 4 feet. Flowers yellow, in profusion in September.

Riverton Gem. 3-4 feet. Yellow with bronze-red shading.

Helianthus

multiflora, fl. pl. (Sunflower). 4 feet. Large, double yellow flowers. July to October.

Miss Mellish. 6 feet. A tall growing kind; large foliage and bright orange-yellow flowers; fine. August to September.

Mollis. 5 feet. August and September. Elegant lemon-yellow flowers and heavy velvety foliage.

Heliopsis

Pitcheriana (Orange Sunflower). 2 to 3 feet. An improved Heliopsis blooming profusely in August and September. Yellow or orange-colored flowers.

Hemerocallis

flava (Yellow Day Lily). 2 feet. One of the best hardy plants, bearing yellow, fragrant flowers in June.

Heuchera

sanguinea (Alum Root). 1½ feet. Flowers bright red borne on long stems projecting above the foliage. Blooms all Summer.

Hibiscus

Moscheutos (Mallow; malva). 3 feet. Pink flowers in July and August.

—**Crimson Eye.** White flowers with crimson center. July and August.

Hollyhocks

(See *Althea Rosea*)

Iris**Fleur de Lis**

This is the well-known Flag of our meadows. Always a sightly plant in bloom, but recently much improved in size of flowers and in colors, which are, indeed, indescribable. They do best in deep, moist soil, but will reward the planter with abundant showy flowers in all situations.

Germanica (German Iris). 1½ feet. Blooming in latter May and June.

Kaempferi (Japan Iris). 2 feet. These are later blooming and, if possible, have more gorgeous colors and greater variety of bloom. June to August.

pallida dalmatica. 2 feet. Flowers light blue, large and fragrant. June.

pumila cyanea. ½ to 1 foot. Dwarf kind, blue flowers, very early. April and May.

Sibirica. 2 feet. Deep blue flowers in clusters. A fine bloomer. One of the best Iris. May.

Iberis

sempervirens (Evergreen Candytuft). 6 to 12 inches. A hardy and attractive plant at all time, but particularly when covered with its white flowers in April.

Lathyrus

latifolia (Hardy Sweet Pea). 6 feet. A rampant growing and trailing plant bearing all Summer flowers in purple, rose and white colors. Good for covering rocks and stumps. July to September.

Liatis

elegans (Blazing Star, or Gay Feather). 1 foot. Bluish-purple flowers. August.

Linum**Flax**

perenne. 18 inches. May to August. Handsome, light blue flowers.

Lobelia

cardinalis (Cardinal Flower). 1½ feet. Scarlet. August and September.

Lychnis

Chalcedonica (Scarlet Lychnis). 3 feet. Brilliant scarlet flowers in large clusters. June.

diurna fl. pl. 2 feet. Flowers double, crimson. Blooms at intervals all Summer. Good for borders.

viscaria. 1½ feet. Bears rosy-pink flowers in masses on long spikes. Very brilliant and showy. June.

Lysimachia

clethroides (Loosestrife). 1½ feet. White flowers. July to September.

Lythrum

salicaria roseum. 2 feet. Rosy purple flowers. Very showy June and August.

Monarda

didyma (Horse Mint, Oswego Tea). 2 feet. Scarlet. August and September.

Myosotis

palustris (Forget-Me-Not). 6 inches. Light blue flowers with yellow centers, blooming May to August.

Oenothera

Evening Primrose. 15 to 18 inches. Snowy white and yellow flowers. June to August.

Pachysandra

terminalis (Japanese Spurge). A low dense evergreen plant with glossy foliage, forming large mats, well adapted for covering the ground, especially in moist or shaded situations. Native of Japan. Flowers white, disposed in small terminal spikes in mid Spring.



Bed of Paeonias

Paeonias

No flower, old or new, is more rapidly or more deservedly advancing in reputation today than the Paeony. Its easy culture and its entire freedom from insects and disease would alone recommend it, but when, in addition, you consider its most attractive foliage, and more especially its immense double flowers in almost all shades of color, and generally their delightful perfume, you have a record of valuable points that no other flower can equal.

Anemone flora rubra. Semi-double; bright scarlet.

Couronne d'Or. White. Yellow stamens.

Delachi. Dark purplish crimson; large and fine.

Duchess de Nemours. Creamy white; fine, new sort.

Duke of Wellington. Sulphur white. A new importation.

Edulis superba. One of the finest. Silvery pink.

festiva. White; free blooming.

—maxima. White with carmine markings in center; extra large and fine.

globosa. Pink; large full flower.

grandiflora rubra. Red.

Lady Dartmouth. White tinged with blush.

Louis van Houtte. Bright red.

Mac Mahon. Wine-red.

Magnifica. Light pink.

Marion des Holmes. White.

Meissonier. Deep red.

Modiste Guerin. Deep pink; large flower.

officinalis rubra. Early. Satiny crimson.

—mutabilis. Nearly white.

—rosea. Deep rosy pink.

Paeonias—Continued

Pulcherrima. Salmon pink.

purpurea. Red.

Rose d'Amour. Delicate Pink.

roseum elegans. Pink.

rubra triumphans. Bright red.

Zoe Calot. Delicate rose.

Papaver

nudicaule (Iceland Poppy). 1 foot. A dwarf variety with deeply lobed leaves and yellow and white flowers. June to August.

orientale (Oriental Poppy). 2 feet. Orange and scarlet. June.

Pentstemon

barbatus (Beard Tongue). 2 to 3 feet. Scarlet. June to August.

Phlox

decussata or **paniculata.** 1 to 3 feet. The varieties of these most satisfactory perennials have been greatly multiplied in recent years, but the sorts we offer run through nearly the whole range of color and shades, and will, in general effectiveness, be quite as satisfactory as a hundred varieties.

Anthony Mercier. Bluish white.

Coquelicot. Fiery red flowers.

Eclairer. Purple carmine, white center; large flower.

Elizabeth Campbell. Best pink.

Fraulein von Lassburg. Pure white, large flower.



Hardy Phlox

Phlox—Continued

Gen. van Heutz. One of the latest introductions, salmon pink of a delicate shade.

Joan of Arc. White.

Independence. White; large.

La Vogue. Silvery pink; large flower.

Madam Langier. Salmon pink; dark eye.

Matador. Large flower, brilliant orange red with cherry-red eye.

Terre Neuve. Light lavender; a dwarf sort.

Thebaide. Light pink; dwarf; free flowering.

Suffruticosa. A species much like the preceding, but the foliage is much better and the bloom in the two sorts named comes earlier and lasts longer; indeed, they bloom intermittently all Summer.

—**Laphami.** A new kind, clear sky-blue delicate flowers. Very handsome.

—**Indian Chief.** Deep magenta with crimson eye. Very early, flowering in May.

—**Miss Lingard.** 2 feet. White with pink eye.

amoena (Creeping Phlox). Pink flowers in early Spring.

subulata. Pink and white. 4 inches. Good for rockwork, borders or bedding, literally covering the ground in April with a mass of flowers.

Physostegia

denticulata (False Dragon Head). 4 feet. Faint rosy-pink flowers. July and August.

Platycodon

grandiflorum (Balloon Flower, or Japanese Bell-flower). 1½ feet. Blue and white-bell-shaped flowers. June to September.

Plumbago

Larpenae (Leadwort). 9 inches. Purplish-blue flowers in abundance. September and October.

Primula

veris (English Cowslip). 8 inches. A fine variety, with large flowers. April and May.

vulgaris (English Primrose). 6 to 9 inches. One of the earliest Spring flowers; pale yellow, very fragrant.

Pyrethrum

Persian Daisy

1½ feet. A most valuable class of hardy plants bearing, on long stems, flowers in different shades of color, pink, white and red. Flowers are much like the Aster. Especially good for cutting, as the flowers are very lasting. May and June.

Rudbeckia

laciniata fl. pl. (Golden Glow). 5 feet. Very showy, well-known and popular; late Summer.

purpurea (Cone Fower). 2 to 3 feet. July to October. Large, handsome, crimson-purple flowers, with dark central disk.

Salvia

azurea (Meadow Sage). 2 feet. Blue flowers in July and August.

Saxifraga

Rock Foil

cordifolia. 1 foot. Large feathery foliage, deep green during the Summer, turning to bronzed in Winter. A good rockery and border plant.

Scabiosa

Mourning Bride

caucasica. 2 feet. Lilac-blue flowers, on good stems for cutting. June to September.

Japonica. 2 feet. A Japanese variety producing beautiful blue flowers in great abundance. August to September.

Sedum

acre (Wall Pepper). 3 inches. Handsome evergreen foliage and bright yellow flowers. A good carpet plant.

Kamtschaticum. 4 to 9 inches. July, August. Bright pulpy evergreen foliage, with golden flowers in flat clusters.

spectabile (Stone Crop, Showy Sedum). 2 feet. Rosy-purple flower in flat cymes in late Summer.

Stokesia

cyanea (Cornflower Aster). 1 foot. Lavender blue. A free-flowering, handsome plant suitable for the border or rockery. July to October.

Tradescantia

Virginica (Spider Wort). 1 foot. Blue flowers. June to September.

Tritoma

Uvaria (Red Hot Poker Plant). 3 feet. Orange scarlet to salmon; an extremely profuse bloomer; good for bedding. July to October.

Trollius

Globe Flower

Europaeus. 18 inches. A valuable border perennial, with large globular, lemon-colored, but-tercup-like flowers on long stems. Grows in almost any soil.

Thymus

Thyme

lanuginosus (Woolly Thyme). A trailing plant, with small leaves of grayish color, making it a handsome variety for edging.

Veronica

Speedwell

spicata. 1 foot. Silvery leaves; slender spikes of blue flowers. June to August.

longifolia subsessilis. 2 feet. Amethystine-blue flowers; very fine. August to September.

To aid purchasers in selecting plants specially adapted for certain locations or specific purposes, we make here some short lists that will, we believe, prove helpful.

For Cut Flowers

Achillea ptarmica. White. All summer
Althea rosea (Hollyhocks). All colors. July.
Anemone Japonica. All colors. September and October.
Anthemis tinctoria. Yellow. June and July.
Aquilegia. All colors. April and May.
Asters. Purple and rose. September and October.
Boltonia. Lilac and white. August and September.
Campanula. Blue and white. June and July.
Chrysanthemum. All colors. September and October.
Coreopsis. Yellow. June and July.
Delphinium. Blue. June and July.
Dianthus. All colors. June and July.

Vinca

minor (Periwinkle). 6 inches. Blue flowers in May.

The Periwinkles are valuable for covering bare spots under trees and on banks.

Viola Cornuta

Violas or Tufted Pansies

The improved forms of *Viola Cornuta* are one of the important bedding plants of Europe. They are but little known here, but are certain to become general favorites. If planted in a partially shaded bed, they will flower continuously for nearly eight months in the year; and while their flowers are not so large as those of the Pansy, their bright colors and floriferousness will make them welcome additions to any garden.

Yucca

(See Evergreens)

Dicentra spectabilis. Pink. May.
Digitalis. Purple and white. July.
Gaillardia. Maroon and yellow. All Summer.
Gypsophila paniculata. White. July and September.
Helenium autumnale. Yellow. September.
Helianthus. Yellow. September.
Heliopsis. Yellow and orange. August and September.
Heuchera sanguinea. Coral red. July.
Iris Germanica. All colors. June.
Iris Kaempferi. All colors. July.
Paeony. All colors. June.
Phlox decussata. All colors. July to October.
Pyrethrum. Pink, red and white. June.

For Carpeting the Ground

Anemone (Wind Flower). White.
Myosotis palustris (Forget-Me-Not). Blue.
Pachysandra terminalis (Pachysandra). White.
Phlox subulata (Creeping Phlox). Pink and white.

Sedum (Stonecrop). Yellow.

Veronica (Iron Plant). Blue.

Vinca minor (Periwinkle). Blue.

For Low Grounds

Hibiscus Moscheutos (Marsh Mallow). Pink and white.
Iris Germanica (German Iris). In all colors.
Iris Kaempferi (Japan Iris). In all colors.

Lobelia cardinalis (Cardinal Flower). Brilliant red.

Monarda didyma (Horse Mint). Red.

Myosotis palustris (Forget-Me-Not). Sky Blue.

For the Rock Garden and Dry Arid Land

Aquilegia (Columbine). In variety and colors.
Arabis Alpina (Rock Cress). White.
Armeria maritima (Sea Pink). Rosy purple.
Asclepias tuberosa (Milk Weed). Orange yellow.
Campanulas (Harebell). Blue and white.
Dianthus (Sweet William). In variety and colors.
Gypsophila paniculata (Baby's Breath). White.

Heuchera sanguinea (Alum Root). Coral red.

Iberis (Candytuft). In variety. White.

Lathyrus latifolia (Hardy Pea). In colors.

Liatris (Liatris). Blue.

Lychnis (Tar Pink). In variety. Pink and red.

Pachysandra terminalis (Pachysandra). White.

Phlox subulata (Phlox). Pink and white.

Sedum (Stonecrop). Pink, rose and yellow.

HARDY GRASSES

All the ornamental Grasses are suitable for planting as single specimens, in masses or along the shrubby border, and we highly recommend their use.

Japonica. 5 to 6 feet. A beautiful hardy Grass from Japan; foliage a deep green surmounted in Autumn with long flower spikes, bearing purplish flowers of very enduring character. Can be cut and dried for Winter decoration.

gracillima univittata. 5 to 6 feet. Fine, hardy, ornamental Grass; leaves narrow and dark green; silver white midrib; very handsome and attractive.

variegata. 4 to 5 feet. Similar to the preceding in all respects except its leaves are beautiful variegated with white and sometimes pink and yellow stripes.

zebrina. 4 to 5 feet. The leaves of this sort are marked with broad yellow bands at right angles, and are very striking and handsome.

All the ornamental Grasses are suitable for planting as single specimens, in masses or along the shrubby border, and we highly recommend their use.

PHALARIS

arundinacea variegata (Ribbon Grass). Large variegated foliage; valuable for bouquets and for edging large beds.

FRUIT DEPARTMENT

We have greatly abridged our former lists, retaining what we believe are the most desirable kinds. We do not attempt here to give cultural directions, further than to state that all fruit trees delight in a good, well-drained soil. We advise enough pruning to admit air and light freely. In small gardens and yards we urge the advisability of using dwarf trees rather than standards, or, if the latter are used, that the heads be kept low. By doing so it will be much easier to treat the trees and to control the insect pests that are so generally distributed throughout the country.

Intending purchasers who propose planting in large quantity are requested to correspond with us, naming number and sorts of trees wanted, when special quotations will be given.

Apples

The first fruit, both in importance and general culture, is the Apple. Its period, unlike that of other fruits extends nearly or quite through the year. By planting judicious selections of Summer, Autumn and Winter sorts, a constant succession can be easily obtained of this indispensable fruit for family use.

SUMMER VARIETIES.

- ***Astrachan, Red.** Large, nearly covered with deep crimson. August.
- ***Early Harvest.** Medium size; round; straw color. August.
- Sweet Bough.** Large; pale greenish yellow; tender and sweet. August.
- ***Yellow Transparent.** Very early. Pale yellow. Last of July.

AUTUMN VARIETIES.

- ***Fall Pippin.** Very large, yellow. October.
- ***Gravenstein.** Large red. September and October.
- Maiden's Blush.** Large, fine, red cheek; flesh white. September and October.
- Oldenburg.** Medium to large size; skin yellow, streaked with red. September.
- ***Wealthy.** Medium. Mostly covered with dark red; flesh white. October.

WINTER VARIETIES.

- ***Baldwin.** Large, deep bright red; popular Winter apple. January to April.
- Ben Davis.** Large, of fair quality; productive; a late keeper. December to March.
- Greening, Northwestern.** Fruit medium to large. Color greenish yellow. January to June.
- ***Greening, Rhode Island.** Large; light greenish yellow. November to March.
- Grimes Golden.** Highest quality; medium to large; golden yellow. January to March.
- King Tompkins.** Large and handsome; striped red and yellow. November to May.
- ***McIntosh.** Large, roundish, skin mostly covered with bright red; flesh white, tender. November to February.
- ***Northern Spy.** Large; nearly covered with purplish red. January to June.
- Russet, Golden.** Medium size, dull russet, with a tinge of red. November to April.
- Stayman Winesap.** Medium size, conical; mostly covered with red on yellow ground. November to April.
- ***Spitzenburg (Esopus).** Medium to large; deep red. November to April.
- Winesap.** Medium; dark red; sub-acid, excellent. December to May.
- York Imperial.** Medium, white, shaded with crimson. December to February.

*Can be supplied in dwarf form.

Apples, Crab

As an ornamental fruit, and for jellies, preserving, etc., the Crab Apple is unequalled. All are hardy and prolific, come into bearing when young, and command a ready and profitable market.

Hyslop. Large, dark red, with a blue bloom; flesh yellow.

Siberian, Red. Medium, round, dark red; for preserving.

Siberian, Yellow. Amber or golden color. Fine for preserves.

Transcendent. Tree immensely productive. Fruit of good size. Color red and yellow.

Cherries

The Cherry tree universally requires a dry soil and is naturally a hardy tree, succeeding in the lightest soils or driest situations. The Heart and Bigarreau varieties are of rapid growth, with large, glossy leaves, forming fine, pyramid-shaped heads, and producing large crops of luscious fruit; are well adapted for planting along streets or in yards as shade trees. We especially recommend Cherry trees as most suitable and satisfactory for gardens and small yards in towns and villages.

HEART AND BIGGAREAU.

- Black Tartarian.** Very large. Black. June.
- Gov. Wood.** Light red; juicy, rich and delicious. June.
- Napoleon.** Very large; pale yellow or red. July.
- Windsor.** Fruit large, liver colored; flesh remarkably firm. July.
- Yellow Spanish.** Large; pale yellow, with red cheek. June.

DUKE AND MORELLO.

These are for the most part round-shaped trees; fruit generally acid, though some varieties have a very mild, pleasant flavor. The trees are smaller than the preceding class.

Early Richmond. Medium size; dark red; sprightly acid flavor. June.

Large Montmorency. A large, red, acid Cherry; larger than Early Richmond, and fully ten days later. June.

May Duke. An old, well-known, excellent variety; large, dark red; juicy, sub-acid, rich. Middle of June.

Nut Trees

CHESTNUTS

American. Our native species; sweet, excellent Nuts.

Japan. Nuts very large, often five in a burr; commence bearing at an early age.

FILBERT

English. Fruit larger than our native species and preferable in localities where it will succeed.

WALNUT

Black. The well-known native species; hardy, prolific and valuable for timber and Nuts.

English. This rich and fine-flavored Nut is quite hardy with us, and makes a vigorous growth.

Japan. From Northern Japan. The Nuts, produced in abundance, grow in clusters. The meat is sweet, of best quality. They bear young and are hardier and more productive than the English Walnut.

PERSIMMON.

Peaches

The Peach Tree requires a well-drained, moderately rich soil—a warm, sandy loam is best.

In order to preserve the continued healthy growth of the trees and the fine quality of the fruit, the trees should have the shoots and branches shortened every year, so as to preserve a round, vigorous head, with plenty of young wood.

Examine the trees carefully and extract and destroy the borer.

EARLY PEACHES.

Carman. August. Large, bright red cheek; white flesh.

Champion. August. White.

Crawford's Early. August and September. Large yellow.

Greensboro. July. Red cheek; flesh white.

Hiley (Hiley Early Bell.) July. Large size with delightful red cheek; flesh is white.

Mountain Rose. August. Red. White flesh.

Ray. August. Fruit large; skin creamy white, tinted with crimson and shades of yellow. Flesh white.

St. John. July. Yellow; free.

MID-SEASON PEACHES.

Belle of Georgia. August and September. White.

Elberta. Early September. Very large, yellow.

Fitzgerald. August and September. Large, round; red cheek; flesh yellow.

Old Mixon Free. September. Large, white freestone.

Stump. September. Large freestone; white with red cheek.

Willett. A variety of large yellow Peach. September.

LATE PEACHES.

Crawford's Late. September. Large, yellow freestone.

Fox Seedling. Late September. White flesh.

Iron Mountain. October. Late freestone; flesh white.

Reeves Favorite. September. Large yellow, with fine red cheek.

Smock. Late September. Large; oval; light yellow, mottled red.

Pears

Standard Pear trees prefer a strong loam, but succeed well in a great variety of soils, and upon almost any land that will produce good crops of vegetables or grain. The fruit will keep longer and the flavor be greatly improved by picking before they are quite mature, and ripening them in the house. By judicious selection of varieties their season can be extended from July to January.

Dwarf Pears are suited to garden culture, or where space is limited.

The letters "D" and "S" appended to the description of varieties, indicate favorable growth, either as "dwarfs" or "standards" or both. Those designated as "moderate growers" are usually smaller trees.

SUMMER VARIETIES.

Bartlett. D. and S. August and September.

Clapp's Favorite. D and S. August.

Wilder. S. August.

AUTUMN VARIETIES.

Beurre d'Anjou. Large; greenish russet. D. and S. October to January.

Duchesse d'Angouleme. Very large. Succeeds well as a dwarf. D. and S. October and Nov.

Flemish Beauty. D and S. August and Sept.

Kieffer. A robust-growing and handsome tree, practically immune from all insect attacks. A most prolific and early bearer of large and, when properly ripened, handsome fruit of fair and sometimes superior quality, the condition of soil and treatment determining the last factor. For canning it is unrivaled. S. October and November.

Lawrence. Large; yellow, flesh slightly granular with a rich, aromatic flavor. S. November and December.

Seckel. Small; yellowish brown when ripe, with a brownish red cheek; flesh fine grained; highest flavored Pear known. D. and S. September and October.

Sheldon. Good size; yellow or russet; flesh juicy. S. October.

Plums

A heavy soil is undoubtedly best for the Plum. The ravages of the curesilio have proven a great drawback to the culture of this delicious fruit. The most successful cultivators save their crops by spreading a sheet under the tree, and then by sudden jars the diseased fruit and insects will be shaken off; these should be carefully destroyed.

Abundance. Japan. An early bearer; fruit very large and tender, with a rich sweetness. First of August.

Bradshaw. European. Fruit very large; dark violet red; flesh yellowish green. August.

Burbank. Japan. Crimson purple; very handsome and of good quality. August.

Fellemborg. French or Italian Prune. Large, oval; purple. September.

German Prune. European. A large, long, oval variety. Color dark purple. September.

Imperial Green Gage. European. Fruit large, oval, skin pale green. August.

Lombard. European. Medium, rounded oval; violet red. August.

October Purple. Large purple; yellow flesh; very late.

Red June. Plum, ripening before Abundance.

Wickson. Of good quality.

Quinces

Bourgeat.
Champion. October and November.
Meeches'.

Blackberries

Plant in good soil, moderately manured. Cut away old, and cut back new wood in Winter. Form a hedge or tie to wire. Cultivate shallow.
Blowers. A very large Blackberry; very hardy and productive.
Rathbun. Berries extra large, jet black. Flesh juicy, high flavored.

Currants

The Currant worm is easily controlled by using white hellebore or Paris green in solution, and using it in season, before the bushes are defoliated. Cut out all old wood and as much new as may be necessary to give room for proper development of leaves and fruit. Currants and Gooseberries love a deep moist soil, and a heavy muck is excellent.
Black Lees. Black.
Cherry. Red.
Fay. Deep red.
White Grape. Yellowish white.
Perfection. Extra large red berries.

Grapes, Hardy Varieties

We urge everyone to plant Grape Vines to supply their own table. No fruit is more easily grown or is more luscious and wholesome. Soil should be warm and dry and of good quality. Under such conditions the Grape will thrive in a very limited space. Plant 6 to 8 feet apart, and from 4 to 6 inches deep, pressing the dirt firmly around the roots. Dig the hole large enough to take in the roots without crossing each other. Grape vines can be trained over fences, trellises or doorways, and thus be ornamental as well as useful.

BLACK GRAPES.

Campbell. Early.
Concord. The best variety.
Moore.
Worden. Ripens earlier than Concord.

RED GRAPES.

Agawam. Large.
Brighton. Berries medium size.
Catawba. Bunches large and loose.
Delaware. Best quality; berries small.
Salem. Berry large; thick skin.

DISTANCE BETWEEN TREES OR PLANTS IN PLANTATIONS.

Standard Apples. 30 to 40 feet apart each way. In poor soil, 25 feet may be enough.
Standard Pears and Cherries. 20 feet apart each way. Cherries will do at 18 feet and the dwarf-growing sorts, Dukes and Morrellos, even at 16 feet.
Standard Plums, Peaches and Apricots. 16 to 18 feet apart each way.
Quinces. 10 to 12 feet apart each way.
Dwarf Pears. 10 to 12 feet apart each way.
Dwarf Apples on Paradise Stock (Bushes). 6 to 10 feet apart.
Currants and Gooseberries. 3 to 4 feet apart.
Blackberries and Raspberries. 3 to 4 feet apart. Rows 6-7 feet apart.

WHITE GRAPES.

Diamond. Bunches large; color delicate greenish white. Ripens before Concord.
Niagara. A strong grower and hardy; bunches large and compact; berries as large as Concord; quality good.

Gooseberries

Require the same treatment as Currants; good high culture, and relentless warfare against the Currant worm.

AMERICAN VARIETIES.

Downing. Fruit large, roundish, light green.
Houghton. Medium size, bears abundant; fruit smooth, red.
Red Jacket. A new Gooseberry of high promise.

Raspberries

Cumberland. Blackcap Raspberry.
Cuthbert. Red; very productive.
Golden Queen. Of good quality. Yellow.
Kansas. Blackcap.
St. Regis. Brilliant crimson; good; ever-bearing.

Strawberries

Layer plants in April, October and November. Pot-grown plants in August, September and April.

Plant in April, September to November, in good round, deeply worked and well manured. Set in rows 3 feet by 15 inches for field culture, and 15 inches each way for garden, leaving a pathway at every third row. Cultivate clean, mulch late in the Fall, uncover crown early in the Spring. Make new plantations annually in rich, well prepared soil.

Asparagus

To make a good Asparagus bed the plants may be set in the Fall or early Spring. Prepare a piece of fine, loamy soil, to which has been added a liberal dressing of manure. Select two-year or strong one-year plants, and for a garden set in rows 20 by 12 inches.

We offer **Conover** and **Palmetto**.

Rhubarb or Pieplant

This affords the earliest material for pies and tarts; continues long in use and is valuable for canning. Make the border very rich and deep.

Grapes. 8 to 10 feet apart.
Strawberries. (See under Strawberries.)

INSECT REMEDIES.

Different "Brands" of commercial ready-made insect remedies can be easily purchased now. Consult the Experiment Station as to the particular disease or insect that needs attention and they will advise you what remedy to apply.

SPRAYING.

In regard to this all important subject we would recommend our patrons to communicate with the Experiment Station in the state in which they live and get definite instructions about spraying for their particular locality, in bulletins published for this purpose.

INJURIOUS INSECTS AND FUNGUS DISEASES

We only enumerate the most abundant and destructive insects and fungus diseases which infect our orchards and gardens. The remedies as suggested are in accordance with the latest recommendations of the leading Entomologists.

Previous to spraying during the dormant season all trees and plants should be properly pruned. The proper time for applying spray solutions cannot be given exactly in this calendar. Allowances for difference in climatic and weather conditions between different localities must be considered. The orchardist should familiarize himself with the habits and life history of the different insects and diseases, in order that he may apply to his particular locality and conditions the necessary measures.

APPLES.

Apple Worm (Coddling Moth)—Spray with two pounds of Standard Arsenate of Lead, three pounds of lime to each fifty gallons of water; first, so soon as the petals fall and before the calyx closes; second, two weeks later; third, about eight weeks after the petals fall.

When the time comes for using the third spraying, Bordeaux Mixture should be combined with one and one-half pounds of Arsenate of lead. The Bordeaux Mixture (4-4-50) is used at this time to prevent Bitter Rot and other fungus diseases.

Apple Tree Blight—Same treatment as recommended for Pear Blight.

Bitter Rot—Use Lime-Sulphur Solution one and one-fourth gallons, two pounds of Arsenate of Lead to each fifty gallons of water. Spray as soon as petals fall. Give a second application of this same mixture three or four weeks after petals fall; then about eight weeks after petals fall use Bordeaux Mixture (4-4-50) with the addition of two pounds Arsenate of Lead, and repeat this latter spraying every two weeks until four applications of same have been given.

Borer—Keep orchard free from litter and examine trees regularly for borers. Their presence will be indicated by sawdust at the entrance of their burrows. Remove, if near the surface, by means of a knife or wire. For those that have entered to a considerable depth inject, by means of medicine dropper, a small quantity of carbon bi-sulphide in their excavation and seal securely with putty or wax.

Canker Worm. Encircle the tree with a canvas belt thoroughly coated with tar; also spray arsenate of lead as soon as worms appear: two pounds of arsenate of lead, three pounds of lime to fifty gallons of water. If necessary repeat in three or four days.

Caterpillar—Destroy nests as soon as they appear in the spring by burning, or spraying with two pounds of arsenate of lead, three pounds of lime to fifty gallons of water.

Cedar Rust—Use seven pounds of atomic sulphur, two pounds of arsenate of lead to each fifty gallons of water. Spray the trees at the same period as recommended for Scab.

Green or Black Aphis—Spray with Black Leaf 40 at the rate of one part to 200 or 300 parts of water, as soon as the Aphis appear.

San Jose Scale—For dormant spraying, use Thomsen Chemical Company's lime-sulphur solution mixed at the rate of one gallon to eight gallons of water. Spray as early in the fall as trees are dormant and again later in February or early March, if the orchard is badly infested. For summer would suggest spraying with kerosene emulsion, one part of the emulsion to five parts of water.

Scab—Use one and one-fourth gallons of lime sulphur solution, two pounds of arsenate of lead to each fifty gallons of water. Spray first, just before buds open; second, repeat as soon as petals fall; third, three or four weeks after petals fall; fourth, eight weeks after petals fall.

Woolly Aphis—For above-ground colonies, spray with Black Leaf 40, 1 part to 200 parts of water, or a tobacco decoction. The summer spray of 1½ gallons of lime-sulphur to 50 gallons of water will also kill them, but must be applied with great force.

For root-inhabiting colonies, remove the soil to a depth of about three inches, or sufficient to partially expose the roots; open a circle from four to eight feet tribute three to eight pounds of tobacco dust or use 10 per cent kerosene emulsion. Enough emulsion should be used to saturate the soil to a depth of three or four inches. Recent experiments have shown that kerosene emulsion may be used with success. Tobacco dust is of more value as a preventive and fertilizer. Badly infested trees should be treated with kerosene emulsion, applying this in April or May, but be sure to have the stock solution properly made or it may injure the trees.

BLACKBERRIES

Rust—Use a spray of sulphate of copper solution; one part to fifteen gallons of water before buds break. Use Bordeaux Mixture (4-6-50) if Rust appears in spring or summer.

GRAPES.

Black Rot—Use Bordeaux Mixture (3-4-50). Spray first, when leaves have expanded; second, just after fruit has set; repeat every two weeks until fruit is nearly grown.

Borer—Its presence is manifested by the unhealthy appearance of the vine. Search must be made at the roots and the grub destroyed.

Curculio—Use Bordeaux Mixture (3-4-50) adding two pounds of arsenate of lead. Spray, first, before blooming; second, when fruit is about one-eighth inch in diameter; third, about first or fifteenth of July.

Flea Beetle—Use two pounds of arsenate of lead, three pounds of lime to fifty gallons of water. Spray as buds are swelling and a second time about two weeks later.

Leaf Folder—Kerosene emulsion or paris green or arsenate of lead as a spray.

Mildew—This can be controlled by Bordeaux Mixture same as recommended for Black Rot.

PEACHES AND PLUMS

Peach Tree Borer—The old method of worming peach trees in winter has been found ineffective, principally because the worms cause too much damage before being removed.

In the spring remove the earth from about the body of the tree down to the crown, scraping off gummy exudations, and carefully search for the borer. For this work use a farrier's knife or a tool especially made for worming peach trees.

An excellent wash for borers is the following: One bushel of quicklime, 20 pounds of sulphur, 1 gallon of coal-tar, 50 gallons of water. Mix tar and sulphur in 10 gallons of water and add lime. Stir well while slaking. When it is entirely slaked dilute the above to 50 gallons, and apply this wash to the tree, allowing it to run well down upon the roots. As soon as it is applied, draw up the earth to the tree so that it will form a cone about six inches above the level. A second application of this wash should be made during August. During the last of October remove the mound of earth from around the tree and thoroughly scrape the bark, as in the spring, and give another application of the wash, when this is completed draw up the earth about the tree as above recommended. This is a vigorous treatment, but is effective in all cases.

Black Knot in Plums—Cut off the affected branches below affected parts and burn to prevent its spreading. Spray with Bordeaux Mixture.

Brown Rot on Peaches, Plums and Nectarines—As Brown Rot Curculio and Scab work together, the same treatment is, therefore, recommended for all.

For Early and Mid-Season Varieties—First: Spray the trees about ten days after the petals fall, when the calyces or shucks are being pushed off, using 1½ pounds of tri-plumbic arsenite of lead and 3 pounds of lime to each 50 gallons of water. This is for the curculio and should be applied with a nozzle capable of throwing a fine spreading mist, covering the fruit and foliage with should be applied with a nozzle capable of throwing a should the trees be drenched.

Second: About twenty days later, or one month after the petals fall, spray the trees with atomic sulphur, 5 pounds to 50 gallons of water, or self-boiled lime-sulphur (8-8-50). To this should be added 1½ pounds of tri-plumbic arsenate of lead, and where arsenate of lead is used, 3 pounds of lime to each 50 gallons of the spray. This is the second treatment for the curculio and the first treatment for scab and brown rot.

Third: About one month before the fruit is expected to ripen, spray the trees with atomic sulphur, 5 pounds to each 50 gallons of water, or with self-boiled lime-sulphur. No poison should be used at this time, and since the application is intended to prevent the development of brown rot during the month preceding the ripening of the fruit and during the picking season, the trees should be sprayed rather heavily so as to coat the fruit on all sides.

For Late Varieties—Late varieties should be sprayed with an additional application of atomic sulphur or self-boiled lime-sulphur about three weeks after the second treatment. This extra treatment is for the protection of the fruit from the attacks of peach scab, to which late maturing varieties are especially susceptible.

Curculio—To prevent the depredation of this pest see remedial measures under Brown Rot and Scab.

Peach and Plum Rosette—Root up and burn the affected tree as soon as the disease is observed.

San Jose Scale—Same as recommended for Apples. Apples.

PEARS.

Pear Blight—Cut off and burn all affected limbs. Careful pruning should be resorted to during the winter to remove all affected limbs and affected areas. Disinfect the pruning shears after removing each branch or affected part. About a 4 per cent solution of formaldehyde can be used for this purpose.

Pear Blight is a bacterial disease and easily transmitted. Write to the Bureau of Plant Industry, Dept. of Agriculture, Washington, D. C.

San Jose Scale—Same treatment as recommended for Apples.

RASPBERRIES.

Rust—Same treatment as recommended for Blackberries.

ROSES.

Anthraxnose—Cut off and burn diseased parts and spray with Bordeaux Mixture (4-6-50).

Aphis—Spray plants with a solution of sulpho-tobacco soap; or a 2 per cent solution of lime-sulphur; or tobacco water, using 4 ounces of tobacco-stems to 1 gallon of water; strain the solution and add 4 ounces of soft soap while it is still hot; stir well to dissolve the soap.

Black Leaf 40 can be used, as recommended, for Green or Black Aphis.

Black Spot—This is a fungus disease. All diseased leaves should be removed from the plant, and those on the ground raked up and burned. Spray the plants with same strength of Bordeaux as recommended for mildew.

Leaf Hopper—Spray with insect powder, tobacco decoction or kerosene emulsion.

Mildew—This is caused by extremes of heat and cold, or by a continuance of damp, cold weather. Sprinkle the plants with water or dust them with soot, or spray with Bordeaux Mixture (3-9-50), taking care to reach the under side of the leaves as well as the upper; also spray the ground around the plants.

Slugs—Spray with Hellebore or insect power.

Thrips and Other Insects—Same treatment as for Aphis.

SHADE TREES.

Leaf Eating Insects—Spray with 2 pounds of arsenate of lead, 3 pounds of lime to each 50 gallons of water.

San Jose Scale—Same treatment as recommended for Apples.

West India Scale—When tree are dormant use lime-sulphur solution as a spray, mixed 1 gallon to 8 of water. During the growing season use Schnarr's Insecticide, mixed 1½ gallons to 100 gallons of water.

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DRIVEWAY LINED WITH ORIENTAL PLANES—A LEADING SHADE TREE. SEE PAGE 6